

**Civil Liability for Environmental Damage: A Comparative Study
between Jordanian and English Legal Systems**

A Thesis submitted for the degree of Doctor of Philosophy in Law

by

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June 2004

Abstract

As environmental degradation continues to grow and presents fatal misfortunes to humankind and nature, efforts have been made to prevent and restore environmental damage as well as compensate its victims. A considerable debate was launched to discuss and figure out how this problem could be best handled. In the centre of this debate was the role of the law and its potential application to protect the environment and compensate victims of environmental damage.

A critical question in this context was the role of civil liability. This thesis attempts to investigate the role and application of civil liability rules in environmental damage cases both in the UK and Jordan. The significance of this study lies in the fact that the UK is considered to be the mother of the common law system where courts play a crucial role in forming and revising the law, whereas Jordan follows the Latin or civil law system where the role of courts assimilates in applying the applicable law to cases brought before it. This thesis consists of six chapters through which, the issue of civil liability has been examined where environmental damage is in question.

This analysis is made in the hope that it will reveal the different aspects of efficiency and deficiency attached to tort law when used to remediate environmental damage and compensate its victims. The thesis reveals that, civil liability as it stands now does not fit in an environmental context, and there will be an urgent need for reform whether in adapting traditional rules of civil liability to cope with the complications involved in environmental damage cases, or to abandon traditional civil liability rules, and introduce a liability regime to handle the issue of restoration and compensation in environmental damage cases.

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Acknowledgments

I thank the Law School at the University of Newcastle upon Tyne for enabling me to pursue my research. I owe a great debt of gratitude to my supervisor Professor John Alder for his undeniable support, knowledge and patience. His comments and luminous suggestions on my early drafts were of great importance and help.

I thank all staff members in the Law School for the warm academic environment. The administrative and library staff members were so helpful and facilitated the research task. I also thank Professor Christopher Rodgers and Mr Michael Cardwell for their useful comments during and after the Viva.

I must finally acknowledge the moral support of my parents and my wife during the last four years.

إهداء...

إلى وحدتي في غربة الأوطان...

إلى أيام تمنيتها لم تكن .. وكانت..

إلى سنين باردة - من العمر- مضت على

مهلها..

إلى أياد بيضاء غرست - برغم الشوك- فكان

الحصاد.. أبي و أمي.. ويطول الثناء..

إلى ملهمتي و رائعة الزمن الجديد..

أسماء..

وإلى النور الزاحف على كل الدنيا...

أرين...

الآن تبتدأ الحياة...

عبد الناصر..

Table of Cases

English Cases

A B v South West Water Services Ltd [1993] QB 507
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Anns v Merton London Borough Council [1978] 1 AC 728
Ashby v White 2 Ld. Raym. 938, 953 (1703)
Attersoll v Stevens (1808) 1 Taunt 183
Attorney General v Gastonia Coaches [1977] RTR 219
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Bamford v. Turnley (1860) 3 B & S 62
Barnes v Irwell Valley Water Board [1930] 1 KB 21
Barnett v Chelsea & Kensington Hospital Management Committee [1969] 1 QB 428,
Barnett v. Chelsea and Kensington Hospital Management [1969] 1 QB 428
Baxter v Camden London Borough Council (No 2) [2000] Env LR 112
Bellew v Cement Ltd [1948] IR 61
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Blue Circle Industries plc v Ministry of Defence 1997 Env LR 347
Blyth v Birmingham Waterworks Co (1856) 11 Exch. 781 at 784
Bolam v Friern Hospital Management Committee [1957] 1 WLR 582
Bolton v Stone [1951] AC 850
Bone v Searle [1975] 1 WLR 797
Bonnington Castings Ltd v Wardlaw [1956] AC 613
Bourhill v Young [1943] AC 92

Bridlington Relay Ltd Yorkshire Electricity Board [1965]
Bridlington Relay Ltd. v. Yorkshire Electricity Board [1965] Ch. 436
British Celanese Ltd. v. A.H. Hunt (Capacitors) Ltd. [1969] 1 W.L.R. 159
Cambridge Water Company Ltd v Eastern Counties Leather plc [1994] 2 AC 264
Caparo Industries v Dickman [1990] 2 AC 605
Caparo Industries v Dickman [1990] 2 AC 605
Caparo Industries v Dickman [1990] 1 All ER 568
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De Keyser's Royal Hotel Ltd v Spicer Bros Ltd [1941] 30 TLR 257
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Donoghue v Stevenson; McAlister v Stevenson [1932] AC 562 HL
Eastern and South African Telegraph Co Ltd v Cape Town Co Ltd [1902] AC 381
Entick v Carrington (1765) 2 Wils 275
Fairchild v Glenhaven Funeral Services Ltd and others [2002] 3 All ER 305
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Foster v. Warblington Urban District Council [1906] 1 K.B. 648
Gateshead Metropolitan Borough Council v Secretary of State for the Environment [1995] Env LR 37
Gillingham Borough Council v Medway (Chatham) Dock Co Ltd [1993] QB 343,
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Gillingham Borough Council v. Medway (Chatham) Dock Co Ltd [1993] QB 343
Graham & Graham v. Rechem International Ltd. 1995.7 ELM 175
Gravesham Borough Council v British Ry. Bd [1987] Ch 379,
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Gunn v Wallsend Sliway and Engineering Co Ltd. *The times.* January 23rd. 1989
Hale v Jennings Bros [1938] 1 All ER 579
Halsey v. Esso Petroleum Co. Ltd [1961] 1 W.L.R. 683.
Harrison v Southwark and Vauxhall Water Co [1891] 2 Ch 409
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Hotson v East Berkshire Area Health Authority [1987] AC 750
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Kennaway v Thompson [1981] QB 88
Khatun and 180 others v UK (1 July 1998, unreported)
Khorasadian v Bush (1993) 3 WLR 476; (1993) 3 All ER 669
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Kosky v The Trustees of the Sisters of Charity [1982] VR 961
Kuddus v Chief Constable of Leicestershire Constabulary [2002] 2 AC 122
Latimer v AEC Ltd [1953] AC 643
Leakey v National Trust [1981] QB 485
Lewys v Burnett & Dunbar [1945] 2 All E.R. 555
Liesbosch Dredger v SS Edition [1933] AC449
Liverpool Corporation v Coghill & Son Ltd [1918] 1 Ch 307
Livingstone v. Rawyards Coal Co. 1880 5 App. Cas25
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Manchester Corporation v Farnworth [1930] AC 171
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Margereson v. J.W.Roberts Ltd 1996, Env. LR (4) 304
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McDonald v. Associated Fuels [1954] 3 D.L.R. 775
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McKenna v British Aluminium Ltd [2002] Env LR 30
McWilliams v Sir William Arrol & Co [1962] 1 WLR 295
Medcalf v R. Strawbridge Ltd [1937] 2 KB 102,
Miles v Forest Rock and Granite Co (Leicestershire) Ltd [1918]34 TLR 500

Miller v Jackson [1977] QB 996
Molyneaux, ex parte [1986] 1 WLR 331
Mulholland & Tedd Ltd v Baker [1939] 3 All ER 253
Murphy v Brentwood District Council [1991] 1 AC 398; [1990] 2 All ER 908
National Coal Bank v J.E. Evans & Co. (Cardiff) Ltd [1951] 2 KB 861
National Telephone Co v Baker [1893] 2 Ch 186 14, 222
Overseas Tankship UK Ltd v The Miller Steamship Co Pty Ltd v Overseas (The Wagon Mound No 2) [1967] 1 AC 617
Pride of Derby and Derbyshire Angling v. British Celanese Ltd. and others (1952) CH 149
R v Exeter City Council ex parte JL Thomas and Co Ltd [1991] 1 QB 471
R v Secretary of State for the Environment ex parte Watson [1999] Env. L. R. 310
R v Secretary of State for the Home Department, ex Parte Brind [1991] 1 AC 696
R v Secretary of State for Trade and Industry ex Parte Duddridge 1995 7 JEL 224
Rainham Chemical Works v Belvedere Fish Guano Co Ltd [1921] 2 AC 465
Read v. Lyons & Co. Ltd (1947) A. C. 156
Reay v British Nuclear Fuels Plc (1994) 5 Med LR 1
Rickards v Lothian (1913) AC 263
Rickards v. Lothian [1913] A.C. 263, 280
Robinson v Kilvert (1889) 41 CH. D 88
Roe v Minister of Health [1954] 2 QB 56 at page 66
Rookes v Barnard [1964] AC 1129
Rose v Miles (1815) 4 M & S 101
Rushmer v Polsue and Alfieri Ltd [1906] 1 Ch 234
Ryland's v. Fletcher (1866) LR 1 Exch 265
Sanders Clark v Grosevenor Mansions co Ltd 1900, 2 CH 373
Scott-Whitehead v National Coal Board [1987] P & CR 263
Shelfer v City of London Electric Lighting Co [1895] 1 Ch 287
Shelfer v City of London Electric Lighting Company [1895] 1 Ch 287
Shiffman v Order St John [1936] 1 All ER 557
Smeaton v Ilford Corporation [1954] Ch 450
Smith v Great Western Railway [1926] 135 LT 112
Smith v Kenrick [1849] 7 CB 515; 137 ER 205

Southport Corporation v Esso Petroleum Co Ltd (1956) AC 218
Southwark London Borough Council v Mills [2001] 1 AC 1
St Helen's Smelting Co v Tipping (1865) 11 HLC 642
St Helens Chemicals v St Helens Corporation (1876) 1 Ex D 196
Stern v Prentiss [1919] 1 KB 394
Sturges v Bridgeman (1879) 11 Ch D 852
Sturges v Bridgman (1879) 11 Ch D 852
Sturges v Bridgman [1879] 11 ChD 852
Sutherland Shire Council v Heyman (1985) 157 CLR 424
Tate & Lyle Food & Distribution Ltd v Greater London Council [1983] 2 AC 509
Tate & Lyle Food & Distribution Ltd v Greater London Council [1983] 2 AC 509
Thompson v Smiths Shirepairers (North Shields) Ltd [1984] QB 405
Transco plc v Stockport Metropolitan Borough Council [2003] UKHL 61
Tutton v A D Walter Ltd 1986. QB 61
Twyford Parish Council v Secretary of State for the Environment [1993] 3 Env LR 37
Walter v Selfe [1851] 4 De G & Sm 315
West v Bristol Tramways Co [1908] 2 KB14; [1908-10] All ER215
Wheeler v. JJ Saunders Ltd [1995] 3 WLR 466
Wilsher v Essex Area Health Authority (1988) AG 1974
Wychavon District Council v Secretary of State for the Environment [1994] Env LR 239

Jordan Cases

Jordan Court of Cassation 119/1997
Jordan Court of Cassation 231/1975, the Law Report 451
Jordan Court of Cassation 316/96 Law Report 1996, p 406
Jordan Court of Cassation 380/ 1988
Jordan Court of Cassation 402/2002
Jordan Court of Cassation 460/ 1998 Law report, 1998, p 710
Jordan Court of Cassation 625/1997
Jordan Court of Cassation 965/1990

Jordan Court of Cassation 980/1982

Jordan Court of Cassation 981/2000 The Law Report, 2637

Jordan Court of Cassation, 9/1998, Law Report 1998, p 32

Jordan Court of Cassation, case no 1291/A 1996. Law report, 1997

Jordan court of Cassation, case No 394/A 2001, law report, 2002

Jordan Court of Cassation, case no 978/A 2001. Law report, December 2001

The District Court of First Instant- Fuheis and Mahes, 12/2002, not reported

The District Court of First Instant- West Amman 165/1978, Not Reported

The District Court of First Instant-, West Amman, 120/2003, Not Reported

The Jordanian Court of Cassation 9/1987, the Law Report. 103

The Jordanian Court of Cassation, No 233/1995, The Law Report, 1995, p 1034

European Cases

Guerra v Italy (116/1996/735/932) 4 BHRC

Hatton and Others v. the United Kingdom (2001)

Hatton and Others v. the United Kingdom [2004] 1All ER 135

Khatun and 180 others v UK (1998, unreported)

Lopez Ostra v. Spain App 16798/90 (1995) 20 EHRR 277

Powell and Rayner v United Kingdom (1990) 172 Eur Ct HR Ser A, 12 EHRR 355

Introduction

1. Introductory remarks

2. Importance of the study and its methodology:

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1. Introductory remarks

Protection of the environment nowadays becomes a matter of urgency rather than a matter of acceptability. Environmental degradation affects not only the human health of present generations by rendering the earth into an awful place to live, but also affects the future capacity of the earth and its resources which ultimately compromises the right of future generations to meet their own needs as they are the successor of present generations.

Therefore, environmental protection has increasingly becomes an ethical duty in terms of intergenerational equity¹; which means that “each generation has an obligation to future generations to pass on the natural and cultural resources of the planet in no worse condition than received and to provide reasonable access to the legacy for the present generation”².

Recently, civil liability for environmental damage has been one of the most rapidly evolving areas of law .A considerable debate has been held in this respect across the world, and there still much to be done pursuant to UN conference on the Human Environment in Stockholm 1972 which addressed for the first time the threats that endanger the earth, and the major instruments by which the environment can be best protected namely the advancement of scientific knowledge, environmental education, and law³. This is not surprising due to the fact that, the environmental protection

¹ Rdgwill. C. “Intergenerational Trusts and Environmental Protection”, 1999, Manchester University Press.pp 71-143. And also Rolston III. H. “Environmental Ethics: Duties to and Values in the Natural World”, 1988. Temple University Press,

² B. Weiss.“In Fairness to Future Generations: International law, Common Patrimony, and Intergenerational Equity”. 1989. Tokyo/New York. pp 37-38

³ Stockholm Conference marked the emergence of international environmental law as a separate branch of international law. See Weiss, B & Szasz, P & Magraw, D “International environmental law, Basic instruments and references” Transnational Publishers, Inc 1992

process makes all these aspects relevant to the subject matter. In a latter stage, environmental liability was strongly referred to in the Rio Declaration 1992 which provides that “States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction”⁴. This was an invitation for all states to develop environmental liability regimes to deal with the issues of compensation and remedying environmental damage⁵.

2. Importance of the study and its methodology:

This study attempts to address the legal issues of civil liability for environmental damage. It will be logical to give a brief background about environmental law and its main principles related to environmental liability, before going into depth to discuss civil liability for environmental damage both in the UK and Jordan, besides, legal issues associated with its rules in environmental context.

Comparative studies have its importance in the fact that, every legislator needs to examine other jurisdictions before laying down its own rules so as to utilise from advanced experiences; specially when a new and problematic subject is to be regulated, this view applies to civil liability for environmental damage which is considered as a new topic in the Jordanian legal system as in many other jurisdictions. The UK has its long history as an innovative and leading jurisdiction in most areas of law, and its membership in the European Union add to its experience a vital impute in the legal arena. Therefore, the study will be limited to examining the English and the Jordanian jurisdictions with some attention to the European initiatives in the field of civil liability for environmental damage.

⁴ Principle 13 of the Rio Declaration, 1992

⁵This invitation was mentioned in the Stockholm Declaration 1972 but only regarding liability under the International Law. principle 22 provides that: “States shall co-operate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction

It is to be mentioned that although the American experience in environmental liability field is one of the most developed experiences -albeit complex- in the world, this study does not intend to examine the American experience in this regard. However, where necessary some references have been made to the situation in the USA throughout the thesis.

The significance of this study in Jordan is that, it is the first ever study to be conducted tackling civil liability for environmental damage under the Jordanian legal system, virtually Jordanian Civil Code provides a wide framework to handle almost all kinds of damage, nonetheless, the traditional rules of civil liability faces considerable challenges whenever environmental damage is in question.

One more point is to be mentioned here is that, the reader of this study will find much more cases cited while discussing the issue of civil liability for environmental damage in the UK than in Jordan; this is due to the fact that Jordan adopt a civil law system and does not follow the common law system where the role of courts is of considerable importance. However, the fact that Jordan applies a civil law system does not mean that the judicial body remains silent where legislations are not up-to-date to the extent which enables the courts to properly deliver justice.

Another important point regarding the Jordanian cases is the fact that, only the judgment of the Jordanian Court of cassation where reported in the monthly Report of the Jordanian bar, so that judgments issued by other Jordanian courts are to be found in the Court's Archive.

3. General Framework

The first chapter made some points regarding the growing awareness of environmental problems which remarkably increased over the last three decades of the twentieth century as well as addressing the importance and the objectives of environmental law as a new developing field among the legal knowledge. Then it went further to discuss the main principles govern environmental law making it work to achieve ideals, such as the Polluter Pays Principle and the Precautionary Principle; these principles which should prevail in order to shape an effective civil environmental liability regime.

Chapter two, focused on the role of law as a means of environmental protection, civil law in particular, the base of civil liability received a detailed analysis. Civil liability for environmental damage may be strict or fault-based, advantages and disadvantages of both are discussed especially when it is to be applied in environmental context. Furthermore, a brief look has been made at criminal law, and administrative law and regulations as well as some environmental act both in the UK and Jordan. Finally a brief discussion has been made dealing with the relation between environmental protection and human rights which -if established-, will necessarily gives impulsion to environmental protection efforts and more importantly to the environmental law and its role in the modern societies

As a comparative study, chapter three of this thesis examines civil liability for environmental damage which mainly derived from the Jordanian Civil Code, with attention paid to Jordanian Environmental Protection Act 1995. Moreover, as Jordanian Civil Code was historically derived from Islamic law; environmental protection under the Islamic jurisdiction was discussed. Another aspect which has an effect on the Jordanian jurisdiction is examined also, the international agreements that Jordan signed or ratified which is in a superior position if conflict rose between its provisions and domestic law. Some Jordanian statues were also considered for they have environmental dimensions.

Common law doctrines with potential application in environmental context were discussed in chapter four with emphasis put on liability requirements for each of them. Particular focus was given to significant cases that represent the judicial approach adopted by English courts towards applying common law to compensate environmental damage victims. Particular depth analysis was made regarding nuisance which is considered to be the green tort.

In chapter five, a brief overview of the European Commissions initiatives in the field of environmental liability has been given; the reason of tackling this topic at the European level in this study is the UK's membership in this remarkable entity. This certainly affects its legal system in many ways. The European Commission has been active in the field of environmental liability; historical initiatives made by the EC

have been traced with special focus given to the White Paper on Environmental Liability, and the latest Proposed Directive on Environmental Liability with regard to the Prevention and Remedying of Environmental Damage.

After this discussion, it becomes clear that many issues arise when traditional rules of civil liability are applied in environmental damage cases. In chapter six, these issues are brought together, and received intensive analysis, particularly the nature of the issue and the potential amendments required to adapt tort law in order to suit environmental damage cases.

Then the study concluded with some remarks and recommendations that may –if adopted- improve the role of civil liability as a means by which environmental protection as well as justice may achieved.

Chapter One:

Environmental Law and its main Principles

1. Growing awareness of environmental problems: the Green awareness

2. The importance of environmental law:

3. The main principles of environmental law:

3.1. Sustainable Development:

3.2. The Polluter Pays Principle:

3.3. The Precautionary Principle:

3.3.1. Problems of the Precautionary Principle:

3.3.2. Precautionary Principle in International and Domestic law

3.4. Other environmental law principles:

1. Growing awareness of environmental problems: the Green awareness

Environmental public awareness has increased dramatically over the last three decades. However, environmental degradation is not a new problem, it has been cumulated over centuries of intensive industrialisation¹, which left the world's environment endangered by a long series of dilemmas such as global warming, the depletion of the Ozone layer, acid rain, deforestation, toxic waste, and pollution of all elements of the environment, atmosphere, biosphere, soil². What surprising in all above-mentioned norms of environmental degradations is that the causer of them – to a large extent – is human activities which, should in principle be operated to the prosperity of the mankind and its well-being.

Many environmental catastrophes occurred all over the world causing tragic consequences; humans and animals death, numerous injuries, a huge economic loss and ecological damage infecting natural recourses as well as damages to the environment and its amenities. Seveso in Italy³, the Sea Empress oil spill disaster at the UK coast⁴, Bhopal in India⁵, Chernobyl in former Soviet Union are some examples of environmental tragedies that received wide media coverage with massive public outcry, and can show how environmental accidents can be devastating⁶. These major accidents constitute additional threats to the environment with its complex far-reaching and transnational effects⁷.

Since it was obvious that environmental risks are in an increasing rate, it becomes crucial to act and react seriously to find out how the environment can be best protected; so as to guarantee human achievements and maintain them to the benefit of

¹ See Wiled, M "Extending the role of Tort as a means of Environmental Protection: an Investigation of recent Development in the Law of Tort and European Union" Brunel university, 1999

² Stone, Christopher. "Should Trees Have Standing-Toward Legal Rights For Natural Objects". (1972) 45 S. Cal. L. Rev. p 450.

³ In 1976 environmental catastrophe in Italy in which carcinogenic dioxins leaked from a pesticide plant, 2,000 poisoned people, 600 evacuated from the affected zone.

⁴ In 1996 an accident resulted in the discharge of approximately 72,000 tonnes of oil into the seas around the coast of South-West Wales.

⁵ A poisonous gas – Methyl-isocyanide - escapes from the Union Carbide pesticides factory, 3,800 people left dead and 11,000 disabled

⁶ The reactor number 4 explodes in the nuclear plant of Chernobyl I n what is considered the worst nuclear accident in history, 31 persons dead in the explosion, 2000 killed by radiation in the following months. And approximately 10,000 to 125,000 dead or seriously ill in following years

⁷ For example, the radioactive leak at Chernobyl nuclear reactor affects not only the area surrounding the reactor, but also affects areas beyond national boundaries of the former USSR.

the present and future generations. People around the world become aware of what environmental degradation may cause to their health and ability to survive.

One writer commented in response to environmental pollution caused by human's activities "we are fouling our own nest"⁸. This is absolutely right; because, the mankind is only an element -albeit the major and the most rational creature- in the whole eco-systems; and due to this fact it is obvious that environmental harms bring adverse effects on his health and prosperity.

For these reasons and to face environmental challenges, the first United Nations Conference on the Human Environment held between 4th and 16th June, 1972 in Stockholm with the participation of 113 states⁹. It was the first international reaction in relation to environmental deterioration¹⁰; it marked a new era of global environmental awareness and recognised that environmental degradation is a global challenge and not simply a national issue¹¹. At this leading Conference the concept of "sustainable development" was first mentioned in relation to the dilemma between economic development and environmental impacts. The concept of sustainable development was launched as a basis for every strategy and planning programme. The conference resulted in the adoption of the Stockholm Declaration which contained of 26 principles, these principles presented guidelines to governments when setting out their own developmental programmes.

However, this declaration was adopted by the United Nations General Assembly by 112 votes to none with ten votes abstentions, the principles adopted at Stockholm Conference is not binding in that; governments will not face any sanctions if their environmental policies do not comply with these principles. Moreover the language used in forming these principles was soft and normative depends on "shall" instead of "should"¹².

⁸ Stone, Christopher. "Should Trees Have Standing-Toward Legal Rights For Natural Objects"(1972) 45. S. Cal. L.Rev, p 450

⁹ The former Soviet Union and other Eastern European States boycotted the conference because of the exclusion of the German Democratic Republic.

¹⁰ Another two major conferences related to environment, held later, Rio Conference 1992 and Johannesburg Conference 2002.

¹¹ Freestone, D, "The Road from Rio: International Environmental Law After the Earth Summit", (1994), *Journal of Environmental Law*, 6 (2), pp 193-218

¹² Bell, S "Environmental law: The law and policy relating to the protection of the environment". Blackstone Press Limited. 5th Ed, 2000, p 95

Apart from principle 21 which is considered to constitute a principle of customary international law other principles adopted at Stockholm are not legally binding on States. Principle 21 gives States the sovereign right to exploit their own resources. Furthermore, Stockholm Declaration formulated the principle that States have the responsibility to ensure that activities carried out within their jurisdictions or control do not cause damage to the environment of other States or to areas beyond the limits of national jurisdiction¹³. Of the same importance regarding environmental protection standards, the principle of common but differentiated responsibilities¹⁴; which provides that environmental protection standards should not be necessarily the same for developed and developing countries.

The most advanced innovation in Stockholm Declaration is that, it laid down -for the first time- the human right to live in an environment of a quality that permits a life of dignity and well-being, and also that the humankind bears a solemn responsibility to protect and improve the environment for present and future generations¹⁵, this last point embraces the notion of sustainable development; Sustainable development means "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs"¹⁶, or in another word, it is the achievement of continuous economic and social development without detriment the environment and natural resources.

This concept calls for all countries to wise management of natural resources and protection of the global environment as it is essential to alleviate poverty, improve the human life condition, and preserve the biological systems on which all life depends. However the expression of sustainable development is not far from being a philosophical and ideal goal rather than having a clear and practical approach; the

¹³ Principle 21 of the Stockholm Declaration, 1972

¹⁴ Principle 23 of the Stockholm Declaration read as follows "Without prejudice to such criteria as may be agreed upon by the international community, or to standards which will have to be determined nationally, it will be essential in all cases to consider the systems of values prevailing in each country, and the extent of the applicability of standards which are valid for the most advanced countries but which may be inappropriate and of unwarranted social cost for the developing countries". This principle was reaffirmed by the Rio Declaration 1992, and the WSSD Plan of Implementation 2002.

¹⁵ Principle 1 of the Stockholm Declaration, 1972

¹⁶ Definition offered by The World Commission on Environment and Development (WCED) appointed by the United Nations General Assembly in its report "Our Common Future" also known as Brundtland Report 1983.

flexibility of the concept is in one sense undesirable because it has meant that developers are able to use the concept to justify a one side development namely the economic side of development¹⁷.

An important feature indicates how States priorities environmental concern in the front of their agendas, can be concluded from the United Nations conference on environment and development held at Rio de Janeiro from 3 to 14 June 1992, which is claimed to be the successor to Stockholm conference .The Rio conference (Earth Summit) resulted in the adoption of Agenda 21 and many international treaties in many aspect of environmental issues.

Agenda 21 reaffirmed many Stockholm Declaration principles which manage to appear again as a basic framework for environmental protection efforts such as the concept of sustainable development which was formulated in article 3 of the Rio Declaration as follows "The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations"¹⁸, and that to achieve this goal, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.

The special situation for the developing countries has been dealt with in article 6 of the Declaration which states "The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable shall be given special priority. International actions in the field of environment and development should also address the interest and needs of all countries"¹⁹.

The most important principle related to this study is the principle which calls all States to enact and develop environmental liability regimes²⁰, and also principles 15 and 16 which made direct reference to some environmental law's principles by stating

¹⁷ Weiss, E & Szasz, P & Magraw, D in "International Environmental Law, Basic Instruments and Reference" Transnational Publishers, Inc.1992

¹⁸ Principle 3 of the Rio Declaration, 1992

¹⁹ Jordan has many vulnerable environmental eco-systems. For example, the Gulf of Aqaba and the many protected zones assigned by World Committee for International Heritage.

²⁰ Principle 11 of the Rio Declaration provides that: "States shall enact effective environmental legislation..." and also principle 13 which provides that "States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction."

“In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”, and “National authorities should endeavour to promote the internalisation of environmental costs and the use of economic instruments, taking into account the approach that the polluter should-in principle-bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment”.

It's worth mentioning that the Rio Declaration also emphasised the importance of public participation in environmental decision-making process. This was affirmed in principle 10 of as follows “Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided”²¹.

Certainly this principle reflects the importance of public participation and it promoted the public awareness regarding environmental protection. Therefore the importance of public participation has been expressed in many environmental instruments. For example at the European level Charter of Paris for a New Europe, it has been stated by the parties when said “We emphasize the significant role of a well-informed society in enabling the public and individuals to take initiatives to improve the environment. To this end, we commit ourselves to promoting public awareness and education on the environment as well as the public reporting of the environmental impact of policies, projects, and programmes”.

The third earth summit on sustainable development recently held in Johannesburg in September 2002, the summit concluded its negotiations with the adoption of

²¹ There is no equivalent principle to this in Stockholm Declaration 1972.

Johannesburg Declaration on Sustainable Development; the Declaration does contain some new themes and dimensions relating to the global environmental challenges i.e. poverty and its adverse environmental effects especially the continuing fault between developed and developing worlds, the challenges resulted from the Globalisation era, and the tragic fact related to aggravation of global environmental problems. The Johannesburg Declaration did not make any significant steps as regards to environmental liability or principles of environmental law. Therefore, some writers believe that "Johannesburg Summit made a shift in emphasis from environmental protection to social and economic development"²².

Another aspect of the new environmental awareness is the appearance of non-governmental organisations which have environmental agendas. These interest groups contribute to the protection of the environment by making pressures on governments and decision-makers to adopt sustainable and green policies. An interesting debate was arias to confer these interested groups the right to standing as will be seen later during the thesis when tackling the main legal issues associated with applying an environmental liability regime²³.

Many states have already their environmental laws to deal with environmental protection standards and include different regimes to be applied in liability for environmental damage cases. As for the U.K. it was the first country in Europe and in the World to establish a public body to administer environmental management, this was in 1863 (Alkali Inspectorate) and it developed further its laws and regulations to contain a wide range of environmental rules such as the Rivers Pollution Prevention Act 1876, Town Planning Act 1909, Poisonous Waters Act 1972 and many others more up-to-dated Acts represented in the Environment Protection Act 1990 and its successor in 1995²⁴.

As for Jordan, it relatively has a new environmental institutions and legislations; the first Environmental Protection Act was enacted in 1995, and before that date Jordan

²² Lavanya. R. "From Stockholm to Johannesburg: The Anatomy of Dissonance in the International Environmental Dialogue", (2003), 12 (1), RECIEL, pp 23-32

²³In the Netherlands for example NGOs have the right of standing to claim injunction in environmental damage cases. See Betlem. G "Standing for Ecosystems- Going Dutch", (1995), 54 (1), C. L. J, p153-170

²⁴ Thornton, J & Beckwith, S "Environmental law "Sweet & Maxwell, 1997, Page 45

has not environmental protection institutions. However, environmental affairs were assigned to the Ministry of municipalities and rural affairs.

From all above-mentioned indications it is obvious that a new environmental era has been started in the second part of the twentieth century to handle global environmental degradation which threatens the present as well as the future of our planet, and it is now well-accepted that "the earth does not belong to man rather it is man who belongs to the earth and as result of this fact whatever befalls the earth, befalls the sons of the earth ,and hence man did not weave the web of life ,he is merely a strand in it. Whatever he does to the web, he does to himself"²⁵.

2. The importance of environmental law:

It's not surprising that this new era of environmental awareness has let to the birth of environmental law which is the legislative instrument by which environmental problems and legal aspects of environmental liability were tackled. Environmental law in the last three decades has acquired a significance importance and has enjoyed a separate identity, and now, it is regarded as a discrete and cohesive area of legal specialisation likely to expand considerably in the next few years as public concern for the environment grows²⁶.

As environmental problems have Transboundary nature; environmental law has been developed in a parallel manner, domestically and internationally, besides the interaction between these two major legal norms²⁷. Having in mind that most of important environmental management issues over the next century are likely to be global rather than regional or local, and to address these problems effectively, new ways of international cooperation will be required²⁸. This seems to be a right argument since many environmental problems have a universal effect for example,

²⁵Attributed to the Chief Seattle and appears in an article written by Weiss, E "What obligation does our generation owe to the next? An approach to global environmental responsibility: Our rights and obligations to future generations for the environment". (1990), 84, *American Journal of International Law*, p 198, Also see The United nations Secretary General Kofi Annan Press Conference when he said "The world is not ours- it is given to us in trust for future generations" 1 May 1997.United Nations University Press. 1998. p 36

²⁶ Thornton & Beckwith, S "Environmental law", Sweet & Maxwell, 1997, page 2.

²⁷ Hanqin. X. "Transboundary Damage in International Law". 1st Edition, 2003, Cambridge University Press

²⁸ Susskind, L, "Environmental Diplomacy, Negotiating More Effective Global Agreements "Oxford University Press, 1994

ozone depletion, global warming, and Transboundary movement of hazardous waste. Therefore it is not surprising that environmental issues now constitute a central concern of the UN and WTO and other international institutions as well as all governments. This concern was indicated by a sharp increase in the number of international agreements relating to the protection of the environment²⁹.

Environmental law at national and international levels depends on certain principles. These principles can be summarised as follows: the concept of Sustainable Development, the Polluter Pays Principle, the Precautionary Principle and the principle the environmental damage should be rectified at source. These are the substantive principles and there are other procedural principles such as the Environmental Impact Assessment, the Public Participation and Access to Justice. All these principles to a different degree received attention in many international instruments including both The Stockholm and Rio Declarations. Below is a discussion of the main principles of environmental law.

3. The main principles of Environmental Law:

As mentioned above environmental law is the legal instrument by which environmental protection efforts are directed to achieve their objectives, it is the framework which highlights and enhances environmental policies. It is worth mentioning that environmental principles as such have no legal force since there is no agreement on the definition that should be given to each of them. However, these principles may guide environmental policies toward achieving its goals.

The most important principles are the concept of sustainable development; the polluter pays principle and the precautionary principle, which will be the content of the following debate.

²⁹ Sands,P, “ Environmental protection in the twenty-first century : Sustainable development and international law”. in “ Environmental law ,the Economy ,and Sustainable development “ Edited by Revesz,R & Sands,P and Stewart,R. Page 371.

3.1. Sustainable Development:

The World Commission on Environment and Development (WCED) defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”³⁰. This definition has become the concept, which refers to the development which predicate both economic growth and environmental protection requirements and put them together to achieve the ideal goal namely sustainability.

The major implicit theme in this definition is that human well-being should not declines over time, as well as taking into account the cost of environmental damage and destruction³¹. It is all about the sustainable utilization of natural resources and ecosystems. Sustainable development requires industry and other human activities to take into account the potential impact of their activities on the environment both in the short and long runs. The vulnerability of natural resources, ecological systems and the finite character of the earth’s non-renewable resources must be considered while preparing developmental programmes³², sustainable development must improve economic efficiency, protect and restore ecological systems, enhance social development and the well-being of all peoples³³.

Sustainable Development recognises that all developmental decisions must simultaneously consider aspects of economy, environment, and equity; if future generations are to enjoy a high quality of life and well-being, or at least not to diminish their right to receive the planet not worse than as we received it from our ancestors, that is the minimal requirement of the so-called intergenerational equity which justifies to a great extent the concept of sustainability³⁴.

³⁰ Bruntland Report (1987), “Our Common Future”: The World Commission on Environment and Development (WCED), Oxford: Oxford University Press.

³¹ Sands,P, “ Environmental protection in the twenty-first century : Sustainable development and international law”. In “Environmental law, the Economy, and Sustainable development”, Edited by Revesz,R & Sands,P and Stewart,R. Page 371.

³² Berry, R “Environmental Dilemmas, ethics and decisions “, Chapman & Hall, 1993, page 251.

³³ Lavanya Rajamani. “From Stockholm to Johannesburg: The Anatomy of Dissonance in the International Environmental Dialogue”, (2003), 12 (1), RECIEL, pp 23-32

³⁴ Weiss, B. “In Fairness to Future Generations: International law, Common Patrimony, and Intergenerational Equity”. 1989. Tokyo/New York. pp 37-38

Sustainable development particularly is critical in the developing world, because developing countries are situated at a crossroads of social choices regarding economic development, natural resources use and environmental quality management, these countries can avoid the costly mistakes often made in industrialised countries and reduce the total costs of environmental degradation by anticipatory approach rather than remedial policies³⁵.

This is not say that sustainable development is only important for developing countries, even in developed countries, sustainable development has a role to play in order to maintain its growth and prosperity; the fact the natural recourse have a limited capacity means that sustainable utilisation of these recourses is needed to protect it from degradation. And if individuals or states have the absolute freedom to exploit and utilities natural recourses irrationally then an inevitable environmental tragedy will emerge. According to *Hardin*, the “tragedy” occurs as a result of everyone having the fatal freedom to exploit the commons for his own benefit; *Hardin* concluded that “... Each man is locked into a system that compels him to increase his herd without limit -- in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all”³⁶.

There was no direct reference to sustainable development in the Stockholm Declaration³⁷. However, the concept of sustainable development emerged in the Rio Declaration 1992 as one of the core principles that should be implemented to achieve the far-reaching goals toward environmental protection Principle 3 states that “The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations”.

Principle four assigned the method by which this principle can be applied stating that “In order to achieve sustainable development, environmental protection shall

³⁵ Hafetz, J “ Fostering protection of the marine environment and economic development , article 121(3) of The Third Law of The Sea Convention” , (2000), 15, *American University International Law Review*, p 583

³⁶ Hardin, G. “The Tragedy of the Commons”,(1968), 162, *The Law and Science Journal*,pp1243-1248

³⁷ Stockholm Declaration stated as regards to sustainable development that: “In order to achieve a more rational management of resources and thus to improve the environment, States should adopt an integrated and co-ordinated approach to their development planning so as to ensure that development is compatible with the need to protect and improve the human environment for the benefit of their population” Principle 13

constitute an integral part of the development process and can not be considered in isolation from it". Principle 8 went on further to provide that "To achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies".

In Europe, The Maastricht Treaty of European Union 1992 which amend the Treaty of Rome placed environmental protection as one its main objectives by requiring a balanced development of economic activities, sustainable and non-inflationary growth with due respect to nature and the environment³⁸. It is obvious from the wordings of these all articles that sustainable development is intended to assimilate both, the concept of economic growth and environmental protection, putting them together to compass the far-reaching goal of human well-being without causing any contradiction with the ethical principle which calls for intergenerational equity³⁹.

Sustainable development can be formulated as a rhetoric concept; it dose not offer a clear and practical measures of how to put it into force. Therefore, this concept is encountering a fatal ambiguity making it a utopian dream which fails to be translated into a practical approach because sustainable development can be given several interpretations; both economists and environmentalists have their own different understanding for sustainable development. Economists for example, may find it impossible to achieve sustainable economic growth without affecting the limited capacity of natural recourses. Therefore, while economists put their emphases on economic growth, environmentalists sit tight to their environmental interpretation for sustainable development and these deferent approaches can not be easily reconciled.

Moreover, sustainable development is merely a principle of environmental policy; it does not have a clear legal content, therefore, no obligation can be derived from such a bombastic and ambiguous principle, even the definition provided by the WCED did

³⁸ this was affirmed in article 2 which states that (The Community shall have as its task, by establishing a common market and an economic and monetary union and by implementing the common policies or activities referred to in Articles 3 and 3a, to promote throughout the Community a harmonious and balanced development of economic activities, sustainable and non-inflationary growth respecting the environment, a high degree of convergence of economic performance, a high level of employment and of social protection, the raising of the standard of living and quality of life, and economic and social cohesion and solidarity among Member States).

³⁹ Revesz, R and others, "Environmental law, the economy and sustainable development", Cambridge University Press, 2000, Page 423

not make it any clear. In the contrary such a definition mixed up sustainable development with ethical and even philosophical concepts related to environmental protection, such as intergenerational equity and nature values and rights, which hardly found its way to be reflected into legal instruments. One of the interesting aspects of the concept of sustainable development is that “to accomplish sustainable development we need to achieve two aims: one is to strike a fair balance between the present and the future, and the other is to use our limited economic resources, including social capital, efficiently”⁴⁰.

Many writers attack this concept raising doubts over the verity of the adoption of sustainable development by using it only as “a cloak for business” arguing that “politicians often use the phrase of sustainable development to convey nothing more than economic growth for as little as a decade”⁴¹. This argument is somehow plausible by virtue of the fact that environmental degradation has increased constantly and sometimes irreversibly over the last few decades⁴², even though they are considered to be the new era of environmental awareness and despite the huge magnitude of environmental conferences held both at domestic and international level⁴³.

There is still much to be said regarding the vagueness of the concept of sustainable development⁴⁴, but the fact that this principle is hampered by many implementation difficulties can not be used to deny that this principle still has much to offer in the environmental protection process⁴⁵.

3.2. The Polluter Pays Principle:

The principle can be simply articulated to mean that, those who cause environmental damage should bear the costs of avoiding it or compensating the victims of such

⁴⁰ Galizzi, P “Globalisation, Trade and the environment: Broadening the agenda after Seattle?”, (2000) 8 (4), *Journal of Environmental Liability*, p 10

⁴¹ Attfield, R “The ethics of the global environment” Edinburgh university press 1999, Page 113

⁴² The clear emergence of the concept of sustainable development was in the Rio Declaration 1992. And there were some thoughts about this concept in the 1970s and 1980s of the last century.

⁴³ Attfield, R, “The ethics of the global environment” Edinburgh University Press, 1999, Page 106.

⁴⁴ Pallemmaerts. Marc, “International Law and Sustainable Development: Any Progress in Johannesburg?”, (2003), 12 (1), *RECIEL*, pp 1-11. See also: L. Rajamani. “From Stockholm to Johannesburg: The Anatomy of Dissonance in the International Environmental Dialogue”, (2003), 12 (1), *RECIEL*, pp 23-32

⁴⁵ For further reading see Claire. M, Segger. C and others in “Prospects for Principles of International Sustainable Development Law after the WSSD: Common but Differentiated Responsibilities, Precaution and Participation”, (2003), 12 (1), *RECIEL*, pp 54-68.

damage. Therefore public financing of environmental damage can be -in most cases- avoided; as the polluters themselves should finance it so long as they can be identified.

The polluter pays principle can be justified from different perspectives; namely economic efficiency and fairness⁴⁶, from an economic perspective, as those responsible for environmental damage is gaining profit from their environmentally harmful activities, then they should be paid for any damage resulted. It also increases efficiency by creating economic incentive for minimising pollution.

Fairness also requires that the general public shall not be responsible for the costs of measures taken to protect or restore the damaged environment; rather it is the polluter -himself- who should bear the cost of environmental damage⁴⁷, to allow the contrary means that people who were innocent would be made to pay such costs, which is certainly unjust and undesirable result.

Polluter pays principle is an economic principle in the sense that pollution costs incurred by the polluter himself and not by the society at large⁴⁸. This view interprets the PPP as an economic instrument. However, I believe that the PPP can be seen as being a liability principle which means; it forms the basis or the rationale of environmental liability regime with its two main dimensions, the economic and the justice dimension.

The Polluter Pays Principle was first widely discussed in the United Nations Conference on Environment and Development held in Rio de Janeiro 1992⁴⁹. The principle was endorsed by all attending representatives of the participating countries⁵⁰. Principle 16 of the Rio Declaration provides that "National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in

⁴⁶ Wilkinson. David "Environment and the law", 2002, Routledge publications, p 121

⁴⁷ Rice, P "From Lugano to Brussels via Arhus: Environmental liability White Paper published", (2000), 8 (2), *Journal of Environmental Liability*, p23- 41

⁴⁸ Rao, P, "International environmental law and economics", Blackwell Publishers, 2002, P 277, See also Patricia, J "The Polluter Pays Principle and the EC Proposal on Environmental Liability: Anything New for Protecting the Ecosystems of Europe's International Watercourses", (2000), 12, *Dundee Law Journal*, available online at (www.Dundee.ac.uk/law/articles/patricia.com)

⁴⁹ However, the polluter pays principle was first institutionally formalized in the 1972 recommendation of Organization for Economic Cooperation and Development (OECD). See Rao, P, "International environmental law and economics", Blackwell Publishers, 2002, p 131

⁵⁰ Scott, J, "EC Environmental law" Longman, 1998, page 60, the Stockholm Declaration was not clearly adopt polluter pays principle, principle 22 of the Stockholm Declaration states "States shall co-operate to develop further the international law regarding liability and compensation for the victims of pollution".

principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment". This principle can be seen as a direction to all States on how to apply the polluter pays principle and other economic instruments when adopting environmental liability schemes⁵¹.

As a result, the polluter pays principle has received a wide acceptance and it has been adopted by many international treaties⁵². In Europe, Article 74\2 of the EC Treaty incorporates the polluter pays principle as one of the EC environmental law principle. By stating that: "Action by the community relating to environment shall be based on the principle that polluter should pay...", but as seen from this article, there are no specific measures assigned for the implementation of the polluter pays principle and putting it into effect. Therefore, it is left for the Member States to enforce this principle within their jurisdictions so as to comply with EU requirements which attempt to internalise the cost of environmental damage before or even after it occurs⁵³.

Recently the European Commission adopted proposal for a Directive on environmental liability with regard to the prevention and remedying of environmental damage 2003 which set out a regime for environmental liability, this regime is based on the polluter pays principle so that the person causing the damage is liable for its remedy⁵⁴.

Of particular importance for the polluter pays principle in order to be implemented that the polluter be known or identifiable so as to impose liability on him, sometimes it is easy to identify the polluter if there is a direct and obvious link between the damage and the polluter's activity responsible for this damage. Therefore, the Directive made it clear that due to the impossibility of establishing a causal link between the damage and the activities of individual operators, its provisions will not apply for environmental damage caused by pollution of a widespread and diffuse

⁵¹ "States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage..." Principle 13 of Rio Declaration.

⁵² For example the 1992 UN Convention on Biological Diversity; adopted 22 May 1992; in force on 29 December 1993, The 1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses, not yet in force, 1998 Convention on the Protection of the Environment through Criminal Law.

⁵³ Bienemann C, "Civil liability for environmental pollution, Different regimes and different perspectives". University of Aberdeen, 1996

⁵⁴ See the forehead of the Directive on environmental liability with regard to the prevention and remedying of environmental damage 2004.

character⁵⁵, this is understandable; because liability for environmental damage can only be effective if the person or entity responsible for the damage can be identified⁵⁶. As for the question of who is the polluter, the common trend in vast majority of environmental instruments is to hold the operator responsible for environmental damage⁵⁷, the Directive defines the “operator” as “any person –natural or legal- who directs the operation of a covered activity including the holder of a permit or authorisation for such an activity and/or the person registering or notifying such an activity”⁵⁸. This approach guaranteed that the party liable would always be the person actually performing the activity. However, this definition does not extend to cover persons who do not directly carry out activities causing environmental damage, and thus who do not pollute. The ability to exercise actual and direct operational administration of an activity covered by the Directive is the only criterion for determining who the operator is. Therefore, banks will not bear operator responsibility because they do not control the customers to whom they provide financial assistance. Moreover, as the person who only exercises control over an activity should be liable; employees and lenders not exercising operational control should not be liable and it is suggested that the definition of the operator should be broadened to include any person who undertakes, causes or permits the operation of an activity⁵⁹. In the USA, The American CERCLA Superfund has adopted a broader scope for imposing liability. Under the Act; potentially responsible parties include: current owners and operators of a facility, owners and operators of a facility at the time the hazardous substances were disposed of, persons arranging for transport and disposal of hazardous substances, and transporters of hazardous substances⁶⁰.

⁵⁵ See article 4/5 of the Directive. See also, Jones. Brain. “ European Commission: Proposed for a framework Directive on environmental liability”.(2002), 14 (1), *Journal of Environmental Law*, p 5-10.

⁵⁶ Lammers. J. “International responsibility and liability for damage caused by environmental interferences”.(2001), 31 (1), *Journal of environmental policy and law*, pp 42-50

⁵⁷ The Directive on environmental liability with regard to the prevention and remedying of environmental damage 2004

⁵⁸ Article 2/6 Directive

⁵⁹ The UK Department for Environment, Food & Rural Affairs Consultation on European Commission White Paper on Environmental Liability, although such view was expressed regarding the White Paper, but it is still valid; since the same approach was adopted by the Proposed Directive.

⁶⁰ In *United States v. Bestfoods* 524 U.S. 51 (1998) Docket Number: 97-454, the U.S. Supreme Court stated that since CERCLA did not have a precise definition of operator; one who operates a polluting facility will be liable for clean up “regardless of whether that person is the facility's owner, the owner's parent corporation or business partner, or even a saboteur who sneaks into the facility at night to discharge its poisons out of malice.

As mentioned above, polluter pays principle is a liability principle, which means; it forms the basis of environmental liability, whether this liability is civil or criminal. Thus polluter pays principle can be implemented by means of civil law as well as criminal law. There is another aspect of this principle namely economic instrument, such as tax and other economic incentives which can play a significant role in internalization environmental costs

The Polluter Pays Principle is an important environmental policy tool; not only because it comply with fairness concept, but also because it provides a strong economic incentive for industries and individuals to change unsound environmental patterns and reduce pollution. The further weakening of the polluter pays principle will mean that, there are even fewer incentives for society to become aware of the pollution problems.

3.3. The Precautionary Principle:

Another important environmental principle which receives a great deal of attention in environmental law and other international instruments tackling environmental protection is the Precautionary Principle. This principle becomes a critical aspect of environmental law throughout the world and has increasingly gained support within the global community. As such, incorporation of the precautionary principle can be found in various international legal instruments such as The United Nations Convention on Biological Diversity 1992, the United Nations Convention on Climate Change 1992 and the Convention of the Protection of the Ozone Layer⁶¹.

The essence of the precautionary principle is that, the best way to protect the environment should be based on prevention rather than cure⁶²; as it might be cheaper to prevent environmental damage in advance than to restore damaged environment. Besides that, some environmental damages are beyond repair since they have an irreversible nature or that the state-of-arts is not developed enough to make conclusive

⁶¹Report to the Secretary General of the United Nations on the work of the Commission on Sustainable Development, 'Rio Declaration on Environment and Development: Application and Implementation,' April, 1997. Gopher: <http://http.gopher.un.org/00/esc/cn17/1997/off/97--8.en>

⁶² The precautionary principle is not really new. The essence of the principle is captured in common-sense aphorisms such as "An ounce of prevention is worth a pound of cure," "Better safe than sorry," and "Look before you leap." However, environmental policy in the U.S. and Europe for the past 70 years has been guided by entirely different principles perhaps best reflected in the aphorisms, "Nothing ventured, nothing gained", and, "Let the devil take the hindmost".

certainty as regards the potential environmental harms; thus, the precautionary principle should be applied despite the lack of scientific certainty, or the insufficient evidence of the adverse environmental effects. At the core of early conception of this precautionary principle was the belief that society should seek to avoid environmental damage by careful forward planning, blocking the flow of potentially harmful activities (it was the early and fundamental environmental principle of foresight in German or vorsorgeprinzip)⁶³.

The precautionary principle was first mentioned in Rio Declaration 1992, which declares in Principle 15 that “In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”. This article constitutes the cornerstone of the precautionary principle. Precautionary principle means that, effective preventative measures are to be taken in advance to prevent harm to environment or human health, and not to use scientific uncertainty to delay undertaking this preventative measures, or in another words, when an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically⁶⁴.

The precautionary approach could provide a basis for policies relating to complex systems that are not yet fully understood and whose consequences of disturbances cannot yet be envisaged, the best example of this is the debate over Genetically Modified Organisms which now constitute a major concern for environmental protection and even the potential role of liability regimes in this regard⁶⁵; because of the inconclusive scientific evidence of its adverse effects.

It become obvious that the application of the Precautionary Principle requires commitment to the idea that scientific proof of a causal link between human activities

⁶³For more see “The Precautionary Principle in Action” First Edition, Written for the Science and Environmental Health Network by Joel Tickner, Carolyn Raffensperger and Nancy Myers.

⁶⁴ In the face of threats of irreversible environmental damage, lack of full scientific understanding should not be an excuse for postponing actions which are justified in their own right. . (Paragraph 35, Agenda 21, 1992

⁶⁵ Bell, S & McGillivray, D “Environmental law” 5th edition Blackstone Press Limited, 2000

⁶⁵ For further reading in this issue see C. Rodgers, “Liability for the Release of GMOs into the Environment: Exploring the Boundaries of Nuisance”. (2003), 62 (2), C. L. J. 371-402

and its adverse effects is not strictly required; it suggests shifting the burden of proof to be on those who want to introduce new technology or activities to prove, not with certainty, but beyond reasonable doubt, that it is safe. This idea is of particular importance in environmental protection because many of adverse environmental effects are latent or even unforeseeable and need a long period to appear.

The clear link between precautionary principle and environmental liability -in general- is that, by adopting a narrow interpretation of the principle; the state-of-art defence may be allowed to exempt liability, while under a wide interpretation this defence may not be allowed. For example, the recent EC Proposed Directive on Environmental Liability with regard to the Prevention and Remedying of Environmental Damage allow the state-of-art defence, it provides that: "Emissions or activities which were not considered harmful according to the state of scientific and technical knowledge at the time the emission was released or the activity took place"⁶⁶. However, it can be said that, the EC interpreted the precautionary principle in a moderate way, because it proposed to cover damage resulted from Genetically Modified Organisms even though the harmful effects of such GMOs are not scientifically and comprehensively conclusive⁶⁷.

3.3.1. Problems of the Precautionary Principle:

The significance of the Precautionary Principle in environmental law and policy is beyond any doubt. However, it gives raise to many problematic conceptual and practical issues when applied;

1- It is argued that, the precautionary principle is vague and has conflicting definitions rendering it into an ambiguous concept. In this regard many definitions have been provided for the precautionary principle such as the 'the triple negative definition' which provides that 'not having scientific certainty is not a justification for not regulating'⁶⁸. One might argue that full scientific certainty may never exist and therefore, such a definition provides for a tough precautionary policy to be adopted⁶⁹.

⁶⁶ Article 8/4/b of the Directive

⁶⁷ Under Annex III of the Directive where strict liability will be imposed of the operator in the absence of his fault or even that he took all reasonable precautions to prevent damage.

⁶⁸ Stone, C, "Is There a Precautionary Principle?", (2001), 31, *Env. L. Rev*, p 10789-10799

⁶⁹ B. Lucas, "Under Standing Precautionary Principle (Part 1)" (2002), 10 (1), *Journal of Environmental Liability*, p 20

Another close and normative definition advocated by environmental interest groups such as Greenpeace is stipulating that “an activity should be stopped if there is sufficient evidence that it is likely to cause unacceptable harm to the environment”⁷⁰, but this definition raise questions about what is the acceptable and unacceptable harm to the environment, and more importantly the degree of sufficiency required to trigger the precautionary principle. Bearing in mind that the precautionary principle shall be invoked only when there is a threat of significant harm being caused to the environment or the human health by a newly introduced activity or technology.

Another definition for the precautionary principle has been provided by the United Nations Environment Programme, it defined the precautionary principle so as to mean “If an activity or substance carries a significant risk of environmental damage, it should either not proceed or be used, or should be adopted at only the minimum essential level and with maximum practicable safeguards”⁷¹. However, this definition was criticised as being unclear and provides no orientations as to what should be minimised and what should be maximised, besides the fact that such an approach would offer high level of discretion to decision-makers who might have their own interests, which might ultimately affects their decisions⁷². In this regard, some critics argue that the vagueness surrounding the precautionary principle delimits its role as a regulatory standard or even to be considered as a principle of law and express their suspicion of the precautionary principle because it “does not specify how much caution should be taken in any situation”, and suggests that it constitutes little more than “a general approach to environmental issues”⁷³. While other responds to this criticism by saying that “principles are by definition general guides to action: they do not and are not intended to provide specific rules of behaviour or precise technical standard”⁷⁴.

⁷⁰ Ibid, p 20

⁷¹ The United Nations Environment Programme, 1992, *The World Environment, 1972-1992*, London, at p 706

⁷² B. Lucas, “Under Standing Precautionary Principle (Part 1)” (2002), 10 (1), *Journal of Environmental Liability*, p 20

⁷³ Bodansky , D, “Scientific Uncertainty and the Precautionary Principle, Environment” (1991), at p 5, and B. Lucas, “Under Standing Precautionary Principle (Part 1)” (2002), 10 (1), *Journal of Environmental Liability*, p 19

⁷⁴ Alder. J, & Wilkinson. D, “Environmental law and ethics”, Macmillan, 1999, p 148, see also Cameron , J and Abouchar. J, “The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment”,(1991), 1, *Boston College International and Comparative Law. Review*, p 2

These above-mentioned definitions are only few illustrative examples to the vagueness and the indeterminate nature of the precautionary principle⁷⁵. However, all these definition to certain degree, address the common elements of the precautionary principle which are plausible threats of harm, lack of scientific certainty, precautionary action to prevent harm. Therefore, the fact that there is no agreement on an accepted and conclusive definition for the precautionary principle does not mean that the precautionary principle should be pitched out or abandoned; although, many wordings are given to the precautionary principle, the substance of each of them is the same, which is to anticipate measures to protect the environment against human activities if there is a threat to human health or the environment without requiring an absolute and conclusive evidence of the activity adverse effects.

2- Precautionary Principles is accused as being 'Anti- Science- Principle' and that it has become an excuse for imposing arbitrary regulations, and if it is to be applies to everything, it would interrupt industries and development because precautionary approach postulate a zero risk society⁷⁶, critics pointed out that "all human activities involve risk, so the only way to achieve zero risk is to die – which is not a very constructive solution to humanity's problems"⁷⁷. However, this accusation can not be taken for granted; since this principle has a potential advantage in this regard since, it may give an incentive to advance scientific research at least to prove the harmlessness of the activity in question.

3- Another issue may rise if the precautionary principle is to be applied, that is who should bear the burden of its application? In other word, who must carry the evidentiary burden to prove that a certain activity has a potential adverse effect on the environment or human health? Should the party invoking the principle be required to show that the action in question threatens serious or irreversible harm, or should proponents of the action be required to demonstrate that such activity will not cause harm?, traditionally, environmental regulators or potential victims would have to

⁷⁵ Some Writers concluded that "The precautionary principle is vague enough to be acknowledged by all governments regardless of how well they protect the environment.", see Andrew Jordan and Timothy O'Riordan in "The Precautionary Principle in Contemporary Environmental Policy and Politics", Paper prepared for the Wingspread Conference on 'Implementing the Precautionary Principle', 23-25 January 1998, Racine, Wisconsin

⁷⁶ Economics emphasised that the strictest interpretation of the precautionary principle would equate with zero emissions, which in turn means that adopting precautionary principle would harm industries and development in general.

⁷⁷ Morris, J "Rethinking risk and the precautionary principle", Butterworth-Heinemann, 2000,

prove that actual harm had been done or that it is likely to occur before imposing restrictions or claim compensation. In the precautionary principle the burden of proof is shifted from the regulators or pollution victims to the polluters. Under the precautionary principle, potential polluters must show that their activities do not cause harm. This shift of the burden of proof is not more than a matter of scientific facts and data; from a practical viewpoint, it is the operator of the intended activity who has such technical fact and scientific data, therefore he seems to be in a better situation to provide such evidence, and if there will be a problem of scientific uncertainty it is the environmental considerations which should outweighs other interests.

4- The precautionary principle conflicts with traditional ideas of freedom; indeed, precautionary principle may restrict freedom of citizens, enterprises, and consumers, and may potentially encroach upon fundamental freedoms guaranteed under the EU Treaty. Therefore, any legislation or decision embodying or implementing the principle is to be subjected to close scrutiny and its motives spelled out in order to comply with the EU Treaty. Such decisions are subject to judicial review. The principle of proportionality must then be applied, i.e. restrictive measures are to be taken only if it is established that other measures less restrictive of these freedoms cannot achieve a similar result for the protection of health, safety and the environment.

Other practical issue arises in the course of implementation of the precautionary principle is that; the scope of the precautionary principle is limited to damage which is either serious or irreversible. Moreover, another limitation is introduced regarding the measures -which are to be taken to prevent damage, Rio Declaration mentioned a cost-effective measures are to be taken in response to risk uncertainty that threatens of serious or irreversible damage. Therefore, identifying these cost effective measures in such a case is problematic issue due to the fact that, the effects which have to be combated or prevented are not yet established

3.3.2. Precautionary Principle in International and Domestic law

Internationally, although there is a controversy over the legal status of Precautionary Principle; the majority of writers and commentators believe that it is now constitutes

a rule of international customary law ⁷⁸; which means that states are under the obligation to adopt the precautionary principle, besides the fact that many international instruments have incorporated it. However, some writers argue that the precautionary “principle” is not in fact a well established principle of environmental law under international law, and said that it is no more than an approach or movement citing that Rio Declaration does not use the term ‘precautionary principle’ but refers to ‘precautionary approach’⁷⁹.

Article 15 of the Rio Declaration 1992 states that “In order to protect the environmental precautionary approach should be widely applied by States according to their capabilities, Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”, the intention of this wording was to allow developing countries to apply the principle less rigorously than developed countries⁸⁰.

It is to be mentioned that, Following the United Nations Convention on Biological Diversity 1992, an advanced legal content with practical dimension has been given to the precautionary principle by the environmentally celebrated Cartagena Protocol on Biosafety which entered into force in Sep 2003⁸¹. The Protocol is designed to protect biological diversity and human health from the potential risks arising from genetically modified organisms by providing a clear legal framework for their transboundary movement on the basis of the precautionary principle.

The Protocol is legally binding and was the first Multilateral Environmental Agreement concluded in the new millennium⁸². Notably the Protocol gave a

⁷⁸ Marr. S. “The precautionary principle in the law of the sea: Modern decision making in international law”, Kluwer Law International, 2003. pp 202-222

⁷⁹ B. Lucas, “Under Standing Precautionary Principle (Part 1)” (2002), 10 (1), *Journal of Environmental Liability*, p 19

⁸⁰ The principle of common but differentiated responsibilities implies that environmental protection standards should not be necessarily the same for developed and developing countries. See also Bergen Declaration on Sustainable Development 1990 which provides that “In order to achieve sustainable development, policies must be based on the precautionary principle. Environmental measures must anticipate, prevent and attack the causes of environmental degradation. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

⁸¹ More than 100 Parties have signed the Cartagena Protocol and around 60 have ratified it. Jordan has signed and then ratified the Cartagena Protocol in Feb 2003

⁸² Howard. Mann. “The Cartagena Protocol on Biosafety: An Analysis”. Bangkok, Thailand, June, 2000. available at The Biodiversity Convention Secretariat website: www.biodiv.org

significant impute to the precautionary principle when it made direct reference to the precautionary approach in the Preamble and also includes precautionary language in the binding text. Although the Protocol Emphasised that it shall not be interpreted as implying a change in the rights and obligations of a Party under any existing international agreements, it particularly creates mechanisms whereby national governments will be able to restrict, or even prohibit, the importation of LMOs even though the traditional international free trade rules provided that the national environmental measures must be scientifically based and no more trade restrictive than necessary to meet their goals⁸³.

Article 1 of the Protocol sets out the objective of the Protocol as follows “In accordance with the precautionary approach contained in Principle 15 of the Rio Declaration on Environment and Development, the objective of this Protocol is to contribute to ensuring an adequate level of protection in the field of the safe transfer, handling and use of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health, and specifically focusing on transboundary movements”.

Articles 10 and 11 provide that parties to the protocol are permitted to take precautionary measures to avoid harm caused by Living Modified Organisms, even when there is lack of scientific certainty regarding the extent of harm that might occur. Therefore, Article 10/6 of the Protocol states that: “Lack of scientific certainty due to insufficient relevant scientific information and knowledge regarding the extent of the potential adverse effects of a living modified organism on the conservation and sustainable use of biological diversity in the Party of import, taking also into account risks to human health, shall not prevent that Party from taking a decision, as appropriate, with regard to the import of the living modified organism in question as referred to in paragraph 3 above, in order to avoid or minimize such potential adverse

⁸³ Any country that is a member of the World Trade Organisation, is automatically bound by the so-called “package” of multilateral trade agreements which limit their right to restrict imports.

effects”⁸⁴. These decisions vary from restriction to the prohibition of the importation of the living modified organism or product resulted from a modification process.

The significance of Cartagena Protocol is that, all previous international instruments adopted the precautionary principle as a general and guiding principle, but none of them permitted certain procedure to implement it. The Cartagena Protocol does not only recognise the principle as a general and guiding principle, but also provides an operational mechanism to implement the precautionary principle.

As for the European Union, precautionary principle is presently considered a dominant principle of environmental law and policy in the EU, The revision to the Treaty of Rome as agreed at Maastricht states: “The Community policy on the environment shall be based on the precautionary principle and on the principle that preventative action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay. Environmental protection requirements must be integrated into the definition and implementation of other Community policies”⁸⁵.

In the case of *Pfizer Animal Health SA v Council and Alparma Inc. v Council*⁸⁶, the Court of First Instance upheld Regulation (EC) No 2821/98 banning the use of certain antibiotics as additives in feeding stuffs and spelled out the conditions for application of the precautionary principle⁸⁷. The facts of the case were concerned with the use of certain antibiotics which have been added to feeding stuffs in very low concentrations as growth promoters. However, since the 1970s scientists have argued that this practice entails a risk of animals developing resistance to these antibiotics and of this resistance being transferred to humans, notably via the food chain, with the attendant risk that it might no longer be possible to use such antibiotics effectively to treat

⁸⁴And also Article 11/8 of the Protocol which states that “Lack of scientific certainty due to insufficient relevant scientific information and knowledge regarding the extent of the potential adverse effects of a living modified organism on the conservation and sustainable use of biological diversity in the Party of import, taking also into account risks to human health, shall not prevent that Party from taking a decision, as appropriate, with regard to the import of that living modified organism intended for direct use as food or feed, or for processing, in order to avoid or minimize such potential adverse effects”

⁸⁵Article 174/2, EC Treaty

⁸⁶*Pfizer Animal Health SA v Council and Alparma Inc. v Council*, Judgments of the Court of First Instance in Cases T-13/99 and T-70/99, PRESS RELEASE No 71/02, 11 September 2002

⁸⁷ O. Segnana “The Precautionary Principle: New Developments in the Case Law of the Court of First Instance”(2002) 10, *German Law Journal*, p 16

certain dangerous diseases in humans. But the link between the use of the antibiotics in question and the development of resistance to them had not been established. This was the background against which the Council invoked the precautionary principle in that regulation. However, the applicants in the two cases, Pfizer and Alpharma, accused the Council of attempting to exclude all possible risks in an unrealistic 'zero risk' approach.

Although there was not sufficient scientific data to conclude that a risk existed, The Council decided to ban the substance. The Court upheld the Council decision which was justified in the interests of human health protection ruling that: "when the precautionary principle is applied, the fact that there is scientific uncertainty and that it is impossible to carry out a full risk assessment in the time available does not prevent the competent public authority from taking preventive protective measures if such measures appear essential, regard being had to the level of risk to human health which the public authority has decided is the critical threshold above which it is necessary to take preventive measures". The Court went on to say that in spite of the uncertainty as to a link between the use of these antibiotics as additives in feeding stuffs and the development of resistance to them, banning these products was not disproportionate to the objective pursued, namely the protection of public health"⁸⁸. This ruling is of great importance; since it is likely that such ruling which explicitly implement the precautionary principle may encourage the national courts of the Member States and the English courts in particular to reconsider its previous position regarding the legal status of the precautionary principle⁸⁹.

As for domestic law, the precautionary principle has been incorporated in many national law statutes, environmental strategies, or become part of national law after being incorporated in an international treaty to which a State is a party. In Jordan, there is no reference to the precautionary principle in the Environment Protection Act 1995. However, the act empowers the former General Corporation for Environmental Protection⁹⁰, to set-up the regulations needed to impose the Environmental Impact

⁸⁸ *Pfizer Animal Health SA v Council and Alpharma Inc. v Council*, Judgments of the Court of First Instance in Cases T-13/99 and T-70/99, PRESS RELEASE No 71/02, 11 September 2002

⁸⁹ As will be seen later, in *R v. Secretary of State, ex p Duddridge* [1995] Env L R 151 at 164, the English Court reject the argument that the precautionary principle is to be considered part of the English law.

⁹⁰ Now, Ministry of the Environment

Assessment on all enterprises or activities which have a potential adverse effect on the environment. Therefore, Jordan now have a bylaw which required a mandatory environmental impact assessments (EIA) from all industrial activities as stipulated under the law⁹¹. Therefore, operators who wish to embark in industrial activities or any other activities that may harm the environment have to conduct Environmental Impact Assessment. This requirement may be seen as a partial application of the precautionary principle⁹².

As for the United Kingdom, the White Paper on environmental policy released by the English Government in 1990 states that “Where there are significant risks of damage to the environment, the government will be prepared to take precautionary action to limit the use of potentially dangerous materials or the spread of potentially dangerous pollutants, even where scientific knowledge is not conclusive, if the balance of likely costs and benefits justifies it. The precautionary principle applies particularly where there are good grounds for judging either that action taken promptly at comparatively low cost may avoid more costly damage later or that irreversible effects may follow if action is delayed”⁹³. Moreover, in 2000 the government published its Response to the Sixth Annual Report of the Government Panel on Sustainable Development. The response states “the government strongly supports the expression of the precautionary principle contained in the biosafety protocol on biological diversity”⁹⁴.

However, English courts have a cautious approach towards the adoption of the precautionary principle⁹⁵. This approach has been seen in the case of *R v. Secretary of State, ex p Duddridge* [1995], In this case, the plaintiffs -parents of three children were concerned about the risk of the children contracting Leukaemia from exposure to the electromagnetic field radiation from high voltage electricity cable- sought judicial review of a decision of the Secretary of State for Trade and Industry in which it

⁹¹Article 15 of this Act provides that “The Corporation shall set-up the basis for procedures needed to evaluate the effect of a project on the Environment to ensure its compliance with the requirements of sustainable development”

⁹² Principle 17 of the Rio Declaration provides that “Environmental impact assessments, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.”

⁹³ the UK White Paper on Environmental Policy, “This Common Inheritance” 1990, Paragraph 1.14

⁹⁴ Response to the Sixth Annual Report of the Government Panel on Sustainable Development, 2000

⁹⁵Fisher. E “Is The Precautionary Principle Justiciable?” (2001), 13 (3), *Journal of Environmental Law*, pp 315-334

declined to issue regulations to the National Grid Company so as to restrict the electromagnetic fields from electric cables. The plaintiffs argued that the Secretary of State should have applied the precautionary principle in making this decision according to article 174 (formerly 130r) of the EC Treaty; they argued that precautionary principle contained in this article was a binding principle in the UK law. Lord Smith J ruled that “Article 174 (formerly 130r) is not binding on member states in that it simply lays down factors to be used when deciding on community policy”. His lordship went on to rule that “If the Government announces a policy which it intends to adopt without being under an obligation to do so, it must be entitled to define the limits of that policy in any way it wishes” and therefore, the plaintiffs failed in their case⁹⁶.

3.4. Other environmental law principles:

Environmental law has other principles that received less attention than the principles mentioned above since these former principles seem to be less problematic than the latter. These principles are Environmental Impact Assessment (EIA, the principle that environmental damage should be rectified at source, Public Participation and Access to Justice, and that States have common but differentiated responsibilities regarding environmental protection. This study will only outline these principles by tracing them both in Stockholm and Rio Declarations, to keep the scope of this study within a reasonable limit.

These principles can be traced throughout Stockholm Declaration and its successor Rio Declaration by using different wordings each time they mentioned. However, their substances are the same; bearing in mind that Rio Declaration referred to them more explicitly than Stockholm.

In Stockholm Articles 2,3, 6, 12 and 19 can be read in one way or another to adopt these principles as the wordings used do not express openly these principles by name but using other expressions such as “careful planning or management”(Article 2) or “renewable resources must be maintained and wherever practicable, restored or improved”. (Article3) or “The just struggle of the peoples of all countries against pollution should be supported”, (Article 6), or “Resources should be made available to

⁹⁶ R v. Secretary of State, ex p Duddridge [1995] Env L R 151 at 164

preserve and improve the environment”, (Article 12) and “Education in environmental matters, for the younger generation as well as adults....is essential... It is also essential that mass media of communications avoid contributing to the deterioration of the environment, but, on the contrary, disseminate information of an educational nature on the need to protect and improve the environment”, (Article 19).

The Rio Declaration made more clarity as regards to these principles, it embraced principles of public participation as well as access to justice in article 10 which states that: “Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided)⁹⁷.

Further, Article 17 embodied the principle of conducting the environmental impact assessment by stating :(Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority)

At the international level, Principle 7 of the Rio Declaration laid down an important remark to the principle of Common but Differentiated Responsibilities that States have concerning their contribution to the global environmental degradation. It provides that: “States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but

⁹⁷ Principles 20 & 21 of Rio Declaration emphasis on the role of women and young as regards to environmental affairs which constitute part of the public participation as well , (Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development), and (The creativity, ideals and courage of the youth of the world should be mobilised to forge a global partnership in order to achieve sustainable development and ensure a better future for all).

differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit to sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.”

As seen above environmental law has a collection of principles which if incorporated together will provide a strong and effective legal protection to the environment.

Chapter two:

Different Legal Methods of Handling Environmental Protection

1- Introduction.

2- Environmental liability

3- The basis of liability and its implication in environmental damage cases:

3.1: Strict and fault-based liability

3.2. Do we need a special liability rules to deal with environmental damage?

3.3. Special liability regime for environmental damage

4. Common Law doctrines of liability with potential environmental application:

5. Other methods of handling liability for environmental damage

5.1. Criminal law and environmental protection

5.2. Special Kind of Statutory Liability: Contaminated Land Regime

6. Environmental protection and human rights:

6.1. Does the protection of Human Rights relate to Environmental Liability?

6.2. Judicial protection of 'environmental' human rights

6.3. The ECHR and the Protection of Environmental Human Rights:

6.4. Some environmental rights:

1- Introduction.

As we noted above, public awareness of environmental degradation became a feature of modern societies. An increasingly legal attempts to handle environmental protection; international gathering, regional and even domestic initiatives have been made; resulting in the emergence of environmental law as a distinct branch of law. Therefore, environmental law is a relatively new field, so that it has only a short time to be judged, in respect of its role and accomplishments.

However, other branches of law have historically been used to deal with personal or property damage that may be resulted from environmental problems¹. In the common law system, tort law-which provides remedies for harm caused by one person to another-provided the necessary legal foundation in early environmental damage cases. Nuisance actions were the most popular², because nuisance allows a successful plaintiff not only to receive compensation, but also an injunctive relief to prevent or abate the nuisance³, such as smell or smoke. In the civil law system plaintiffs invoke tort and property law in the same way to claim compensation⁴.

Historically, tort law tends to focus on the protection of human private interests. Therefore, it has not been an efficient mean of preventing environmental damage⁵. Moreover, tort law has been accused, of being slow, cumbersome, and expensive which does not meet the need of clearness and speed in dealing with environmental damage threatening tort law from being effective and capable of compensating victims in a fair way⁶. As a result, many difficulties both substantive and procedural

¹ The term "environmental problems" can be viewed from two angles, first: any occurrence that has adverse environmental effect concerning the state of nature such as global warming, deforestation, acid rain, nuclear radiation etc. Second: it can be referred to personal injuries or property damage resulted from such harmful occurrence.

² Morrow, K. "Nuisance and Environmental Protection", In "Environmental protection and the common law", Edited by John Lowry & Rod Edmunds, Oxford-Portland Oregon 2000, page 179

³ "Injunction means an order from the court directing the defendant to desist from the future commission of any tortious act". See Brazier, T & Murphy, J. "The law of Torts". Butterworths. 1999, p 388

⁴ A Civil law system depends on Parliamentary legislations rather than judicial precedents. Jordan is an example for countries of civil law system.

⁵ McGillivray, D. & Wightman, J "Private Rights, Public Interests and the Environment" in "Justice, Property and the Environment" Edited by: Hayward, T & O'Neill, J. 1997. Ashgate Publishing Ltd. P 144-161

⁶ Markesinis, B. & Deakin, S. "Tort law", Clarendon press. Oxford 1999, page 1. See also Deakin, S "The evolution of tort", (1999), 11 (2), *Journal of Environmental Law*, pp 537-546

arise whenever there is an attempt to introduce or implement any environmental liability regime based on tort law theories.

2- Environmental liability

The term environmental liability implies the idea that environmental damage should be born by the polluter whether civilly or criminally. The idea that one who causes environmental damage or traditional damage resulted from environmental harm, is supported by fairness requirements. The polluter pays principle has a great deal to offer in this respect as it requires the polluter himself rather than the general public to pay for compensation and restoration of damage occurred as a result of his activity⁷. The main goal of the polluter pays principle is to internalise the costs of environmental risk and damage⁸. It can therefore, supports the effectiveness of the precautionary principle by creating incentives to avoid causing environmental damage⁹.

In this respect, traditional liability rules face many barriers when it is to be applied in environmental damage cases. The traditional tort law rules applied in cases of compensation such as nuisance, negligence, the rule in *Rayland's v. Fletcher* do not necessarily fit when environmental damage is concerned¹⁰.

The keyword that explains the potential failure of tradition tortious liability in environmental damage litigation is causation¹¹; in order to establish his case, the plaintiff needs to prove on the balance of probabilities that specific factor resulted in his injury. In environmental damage cases, plaintiff may face difficulties in

⁷ Scott, J. "EC Environmental law" Longman, 1998, p 60, See also Bianchi, A. "The Harmonization of Laws on Liability for Environmental Damage in Europe: An Italian Perspective", (1994), 6 (1), *Journal of Environmental Law*, p 84

⁸ Monti. Alberto. "Environmental risk: a comparative law and economics approach the liability and insurance"(2001), 1, *European Review of Private Law*, pp 51-79

⁹The European Union (EU)'s Fifth Action Programme on the Environment states: "Liability will be an essential tool of last resort to punish despoliation of the environment. In addition - and in line with the key objective of prevention at source - it will provide a very clear economic incentive for the management and control of risk, pollution and waste".

¹⁰ Morrow.K "Nuisance and environmental liability" an article founded in "environmental protection and the common law". Edited by Lowry.J & Edmunds.R. Oxford - Portland Oregon .2000, and Wilde. M "Extending the role of the tort as a means of environmental protection: An investigation of recent development in the law of tort and the European Union". PhD thesis. Brunel University 1999. Markesinis.B & Deakin.S "Tort Law". Fourth Edition. Clarendon.Oxford.1998. 178.

¹¹ The expression "Environmental damage" encompasses any damage suffered by the environment and any injury suffered by individuals or their property as a result of contamination. See Macchiarello, G. "Environmental regulations in Argentina", (1997),5 (3), *Journal of Environmental Liability*, p 67.

identifying that specific cause resulted in his harm, because of lack of sufficient scientific data. Additionally, long-distance and latent pollution may render the identification of a specific source of release difficult. Moreover, substances interact with each other in such a way, that makes it complex to know which out of many substances are causally relevant to the particular damage and to what extent each of them contributed to such damage. The establishment of a causal link between the specific activity and particular harm in these circumstances is a complicated issue; as in the common law actions, the burden of proof is incumbent upon the plaintiff to demonstrate a plausible probability that the defendant conduct resulted in his injury¹². Some environmental regimes such as The Austrian Atomic Act 1999 make a presumption of causation. It provides that victim of injury from a nuclear installation or material, or radionuclides need only show the probability that his body was exposed to ionising radiation emerging from the defendant's nuclear installation or material, or from the radionuclides of which he had control¹³.

Another legal dilemma arise in the case of orphan damages which is damage for which no polluter can be identified or for which the identified polluter is insolvent, or even in the case of damage of widespread character; where the defendant is not identifiable at all, or even where innumerable actors contribute to the plaintiff's damage as motor vehicles pollution.

In this case using traditional tort law is out of the question. Above all, traditional liability rules usually require a finding of some lack of care or fault in the side of defendant to be liable, as in negligence. However, in some circumstances strict liability applies, meaning that, liability can be established irrespective of defendant's fault and it is then only necessary to prove that a defendant conduct caused the plaintiff's damage.

Moreover, traditional civil liability rules are rules of private law; they are not originally prepared to recover from polluters the costs of remedying damage caused by them to the unowned environment; because civil liability is concerned only with the claimant's

¹² Wilde, M "Extending the Role of Tort as a Means of Environmental Protection: An Investigation of Recent Developments in the Law of Tort and the European Union". Brunel University. 1999. See also Lee, M. "Environmental Blight: liability at common law"(1998), 6 (2), *Journal of Environmental Liability*, p 56

¹³ See Posch, W. "New developments in the law of civil liability for nuclear damage. Spearheaded by Austria: From privileges for nuclear industry to a true protection of Mankind and the environment".(2000), 7 (3), *Journal of Environmental Liability*, p 83

interest and not with protecting the environment as such, for example, in private nuisance a right to “environmental quality” must be combined by a proprietary interest in land¹⁴. Some writers made the point that tort law is mainly concerned with interpersonal relationships citing that a person cannot be held liable for polluting their own land¹⁵.

3- The basis of liability and its implication in environmental damage cases:

One of the most crucial issues is the basis of the civil liability regime applied in environmental damage cases; whether this regime is a strict or a fault-based one. Each has advantages and disadvantages, besides the fact that the adoption of a certain regime will have a significant impact on the outcome of environmental litigations.

3.1: Strict and fault-based liability

Strict liability means that, the defendant will be liable for the damage caused by his commission or omission even though he commit no fault. However this does not mean that causation will be presumed. Therefore, it would still be necessary to establish the causal link between the act or omission and the damage caused thereof. This is of particular importance to distinguish between strict and absolute liability in the sense that the latter does not require the establishment of a causal link¹⁶. Whereas fault based liability or negligence requires a fault in defendant’s side, or more precisely, there must be a duty of care owed by the defendant towards the plaintiff and that the defendant breached this duty. Such difference has a significant effect in environmental damage cases; because proving fault in these cases can complicate the plaintiff’s task.

Although the general trend in this respect reveals that strict liability is widely adopted both in international treaties and domestic legislations¹⁷, some scholars believe that this trend does not reflect the fact that strict liability is superior to fault- based regime where environmental damage is in question, they argue that : “the best explanations for strict liability regimes of non-contractual liability are political and psychological

¹⁴ *Hunter v Canary Wharf Ltd* [1997] 2 All ER 426

¹⁵ Cane. P “Using tort law to enforce environmental regulations”. (2002) 41 (3), *Washburn Law Journal*, p 440. Also available online at <http://washburnlaw.edu/wlj/41-3/articles/cane.pdf>.

¹⁶ Bienemann, C. “Civil liability for environmental pollution, Different regimes and different perspectives”, University of Aberdeen, 1996, p 59

¹⁷ Monti. Alberto. “Environmental risk: a comparative law and economics approach the liability and insurance”,(2001),1, *European Review of Private Law*, pp 51-79. See also Study of civil liability systems for remedying environmental damage. Final Report, published in 1995 available on line at http://europa.eu.int/comm/environment/liability/civiliability_finalreport.pdf

rather than legal policy and principle”¹⁸ other added that “the mere fact that a country has not adopted a strict liability rule in a formal statute should not necessarily lead to the normative conclusion that this approach is a less desirable solution”¹⁹.

In this context, strict liability is thought to be more efficient in circumstances where the potential defendant is in a better position to evaluate the costs and benefits of his activity than victims; and this is clear in environmental damage cases where the defendant hold the information and the data about his activity and its potential effects²⁰. The technical nature of the defendant’s activity along with lack of sufficient scientific data regarding this activity and its effects could make it impossible to prove defendant’s fault or even a persuasive causation and ultimately leaves the plaintiff without compensation. Moreover, environmental damage could be a result of interaction between or among several defendants activities renders the identification of the specific source of release almost impossible, and even if possible costly and time-consuming.

Other reasons behind preferring strict liability to fault based are; strict liability is thought to be the practical application of the polluter pays principle which forms the backbone of any environmental liability regime, and as strict liability presents a hard-line approach, it may be with more deterrent effect than a fault based liability²¹.

As for a fault-based liability regime, it requires a breach of duty of care, the courts will have a principal task to determine the existence of such duty, then the plaintiff needs to prove a breach of that duty –fault- , and also a causal link between his injury and the defendant’s wrong doing. All these requirements do not support plaintiff’s position in environmental damage cases; which gives strict liability advantages over fault-based liability rules. On the other hand, fault-based liability seems more compatible with justice and morals than strict liability²²; because, this is compatible with the perspective which views civil liability as a system of ethical rules and

¹⁸ See P. Cane “Are Environmental Harms Special?”, (2001),13 (1), *Journal of Environmental Law*, pp 3-20

¹⁹ For more information see Betlem. G & Faure. M “Environmental toxic torts in Europe: some trends in recovery of soil clean-up costs and damages for personal injury in the Netherlands, Belgium, England and Germany”.(1998), 10, *Georgetown International Environmental Law Review*, p 855

²⁰ S. Shavell. “ Strict Liability Versus Negligence” (1980), 9 (1) *Journal of Legal Studies*, pp 1-25

²¹ Jones. B “ Deterring, compensating, and remedying environmental damage: the contribution of tort liability”. In Wetterstein. P “Harm to the environment: The right to compensation and the assessment of damages” Clarendon Press. Oxford 1997. P19

²² Heuston. R & Buckley. R. “ Salmond and Heuston on the Law of Torts” 21st edition. 1996. Sweet & Maxwell Ltd. P 22.

principles of personal responsibility for conduct²³. This last argument could be alleviated by saying that when the operator embark in activity which is likely to cause harm to others, he should do this in his peril; because he is the beneficiary of that activity and the just solution is to make him liable from any damage resulted thereof²⁴.

An interesting points made by Peter Cane where he argued that both fault-based and strict liability contain a duty of care, but the content of this duty is different. While in negligence, the defendant is under a duty not to cause harm to the plaintiff negligently or carelessly, under strict liability the defendant is under a strict duty not to cause harm to the plaintiff in any circumstances²⁵. This difference is merely academic; for in practice, it is obvious that strict liability imposes no duty upon the defendant since he will be held liable even though he did not commit any fault and even if he take all precautions to prevent causing harm in the circumstances.

Therefore, it might be fairly said that a fault-based liability regime applicable in environmental damage cases is likely to create more incentives for operators, since they will be held liable only if they behave negligently or contrary to their licences' conditions. While under a strict liability regime they will find themselves with fewer incentives to take precautions or perform diligently, or even in extreme cases to refrain from their activities; since liability will be imposed upon them regardless of their precautions or carefulness.

From an economic perspective, strict liability may provides polluters with incentives to minimise environmentally adverse effects of their activities, if it is economically cheaper to do so than bearing liability, they might invest more money in research to find or install equipments to abate or minimise their emissions. However, fault based liability might have the same effect since liability will only result from polluters failure to comply with certain level of emissions or a specified standard of behaviour which they could meet by adopting best practices or state of art precautions.

Moreover, it can be argued that, the deterrent effect of strict liability is not necessarily overweight what fault based regime might provide, -putting aside, that deterrence is principally meant to deal with intentional wrongs²⁶ and that it is not a wise approach

²³ See P. Cane "The Anatomy of Tort Law", Hart Publishing, 1997, p 1

²⁴ As will be seen later, this was the core of the rule in *Ryland's v. Fletcher*.

²⁵ P. Cane "The Anatomy of Tort Law", Hart Publishing, 1997, Also Theories of Tort Law, Available online at <http://www.setis.library.usyd.edu.au/stanford/entries/tort-theories/#1#1>

²⁶ Glanville Williams. "The Aims of the Law of Tort", (1951), 4, *Current Legal Problems*, pp137-176

to use civil liability for purposes other than compensation and not to punish polluter by means of civil liability; since punishment is better achieved by means of criminal law²⁷; the mere fact that the defendant will be held liable regardless of his fault, might give him fewer incentives to prevent damage, and ultimately results in his carelessness.

Cane's argument regarding the role of tort liability is somehow confusing; he argues that civil liability is mainly about compensation, and not punishment, and that civil liability is only concerned with compensation rather than protecting the environment as such. This assertion underestimates the deterrent function for civil liability. And even if tort liability is mainly about compensation and not punishment, then it mainly serves economic objectives.

Strict liability seems to be more rational than fault-based liability since liability under a strict liability regime will be triggered by damage being caused to the plaintiff. However under a fault-based liability regime, liability will only follow fault in the defendant's part, then it serves a punitive objective more than a compensative one. Moreover, punishment under tort law doctrines takes the form of punitive or exemplary damage, and if we follow Cane's argument, then the easiest way would be to rule out punitive damage in environmental claims –except in the case of deliberate extreme negligence- and to confine compensation to the actual damage incurred by the plaintiff or the environment.

However, Cane himself in 'The Anatomy of Tort Law' Surprisingly did not question the punishing function that tort law serves by allowing the courts to award punitive damage in certain circumstances. He said that: "...the purpose of punitive damages, as the name implies, is to punish the tortfeasor. To this end, if a tort is committed deliberately, then in order to make the point that 'tort does not pay', the tortfeasor may be stripped of any gain arising from the tortious conduct"²⁸. Moreover, Cane defended the rationale of punitive damage against criticism that tort -as being part of civil law- should not be allowed to punish, because it is the purpose of criminal law to do so. he said in this respect: "...however, punishment can be seen as a particularly

²⁷ P. Cane "Are Environmental Harms Special?", (2001), 13 (1) *Journal of Environmental Law*, pp 3-20

²⁸ P. Cane "The Anatomy of Tort Law", Hart Publishing, 1997, p 114

emphatic way of expressing disapproval of and discouraging (or “detering”) certain types of conduct”²⁹.

For the above mentioned remarks, strict liability for environmental damage may be best justified by the risks presented by the defendant’s activity rather than by fault in his conduct. Therefore, strict liability could be described as a risk based liability as opposed to a fault based liability in negligence. Moreover, strict liability adopts a deeper pocket rationale; the polluter is more likely to be in a better economic position to bear the risk of his activity, and to compensate victims of the damage caused by his activities.

Fairness requirement also calls for the polluter – as he is the beneficiary- from his activities to bear the burden of liability resulted from the damage he caused, another reason which may justify strict liability for environmental damage is the difficulty in proving the defendant’s fault, especially where the scientific knowledge provides limited certainty or where the damage resulted from a combination of multiple polluters.

Many national and international instruments adopted a strict liability regime in respect of environmental damage, for example, The Spanish draft Act on Environmental damage imposes strict liability regime regardless of fault or negligence. This principle is based on the idea that those who create a special danger shall bear the consequences of that risk even if there is no fault on their side³⁰

3.2. Do we need a special liability rules to deal with environmental damage?

To answer this question one ought to ask another question first, **are environmental harms special?**³¹ The starting point of Cane’s Argument is that environmental harms are not of particular speciality in their nature; he asserts that people only consider environmental harms special because of their source as being the result of pollution rather than being special in any way that make them different from other kinds of harm and therefore require a special liability regime to handle them.

However interesting, Cane’s argument focus on the nature of harm to determine that it is a special harm or not, but I do believe that even if the nature of environmental

²⁹ Cane, P, “The Anatomy of Tort Law”, Hart Publishing, 1997, p 119

³⁰ Martin, J. & Barrenetxea, G. “The Spanish Draft Act on Liability for environmental damage”. (1997), 5 (6), *Journal of Environmental Liability*, p 115

³¹ Peter Cane wrote a well-known article with the same title in 1999, see P. Cane “Are Environmental Harms Special?”, (2001), 13 (1), *Journal of Environmental Law*, p 3-20

harms is not of particular speciality, the legal difficulties in combination with them could -at least- give them the merit to be handled by a special liability regime, causation and the traditional burden of proof for example, present a well-known challenge to the victim of environmental damage. Standing in the case of damage caused to the unowned environment is another challenge. Therefore, if we agree with this argument that the nature of environmental damage has no special character to justify a special regime; there will be a justifiable speculation that traditional civil liability rules, as it stand now, do not sufficiently protect the environment or support plaintiff's case in the event of environmental damage³². it remains a matter of fact that ecological damage or damage caused to the unowned environment- at least- requires special rules to confer right of standing to a certain individual or agency to bring an action before courts.

In my view, this question can not be easily answered by looking only to the nature of environmental harms as such, because the nature of environmental harms may not be different from other kinds of harms. However, the peculiarity of harms does not always come from its nature, but from other considerations, for example, why should product liability be governed by special rules? Is it because of the fact that the nature of harms caused by products differs from others? Or are there other considerations that should be taken into account? In fact, these considerations may be a mixture of economic, social, and practical considerations, as well as fairness.

3.3. Special liability regime for environmental damage

Despite Cane's argument, which represents the view of some other commentators, the fact is that new civil liability regimes for environmental damage are being introduced at a national, continental and international level.

At a national level, many countries, both developed and developing have enacted legislation dealing with liability and compensation for environmental damage. For example, in Sweden civil liability for environmental damage is codified under the Environment Civil Liability Act 1986, in Germany, a new law on environmental damage (Umwelthaftungsgesetz) came into force on the 1st January 1991, this new liability act encompasses some special rules in order to cope with the nature of

³² See Alexander. R & Iur. "Non-fault liability in Germany". in "Environmental liability". Edited by Patricia Thomas. Graham & Trotman Ltd, 1990.P 167- 182.

environmental damages and the requirements to establish liability before courts. It particularly adjust the burden of proof by providing a refutable presumption that plaintiff's injury is resulted from the defendant's conduct besides setting up a strict liability rules for damage caused by certain activities³³.

Likewise, Denmark has passed legislation that recognises strict liability for environmental damage on companies in certain identified industries³⁴. Norway for its part enacted a legislation introducing civil liability regime for pollution damage provides for a strict liability for such damage³⁵.

In Other countries, civil liability for environmental damage is determined by general principles of tort as defined in their civil codes such as Jordan³⁶, Belgium, or still dealt with under traditional common law³⁷. United Kingdom is an example for this latter category³⁸, bearing in mind that The United Kingdom has traditionally been reluctant to allow for strict liability regime in civil proceedings³⁹.

4. Common Law doctrines of liability with potential environmental application:

There are many doctrines of tort liability that can be applied when environmental damage is concerned. The main tort law doctrines that can be used in the case of environmental damage are nuisance, the rule of Ryland's Fletcher, trespass and negligence. Each of these norms has its own rules and conditions under which the plaintiff can bring action to demand damage or injunctive relief to cease the activity responsible for causing harm.

These common law doctrines are dealt with under the term "toxic torts" which refer to this type of actions. The expression is relatively newcomer to the language of English law, it is not surprisingly a term borrowed from the United States⁴⁰. Common law doctrines with potential applicability in environmental damage cases can be divided

³³ Germany Environmental Liability Act 1990, (Umwelthaftungsgesetz).

³⁴ The 1994 Compensation for Environmental Damage Act

³⁵ The Pollution Control Act 1981

³⁶ It is noteworthy that Jordanian legislators have not enacted any special provisions dealing with civil environmental liability. Therefore, this matter has been fallen under the general principles governing civil liability within the civil code. For further details Chapter 3 of this thesis.

³⁷ Study of civil liability systems for remedying environmental damage. Final Report, published in 1995 available on line at http://europa.eu.int/comm/environment/liability/civiliability_finalreport.pdf

³⁸ For further information, see chapter 4 of this thesis.

³⁹ Burnett-Hall. R. "Emerging trends in environmental law: non-fault liability: the United Kingdom", an article to be found in "Environmental liability". Edited by Patricia Thomas, Graham & Trotman Ltd, 1990

⁴⁰ Pugh, C. & Day, M. "Toxic torts". Cameron May Ltd. 1992.

into three categories, interference with land or property i.e. nuisance and trespass and the rule in *Ryland's v. Fletcher*, liability for escapes i.e. the rule in *Ryland's v. Fletcher*, and fault-based tort i.e. negligence. These doctrines will be discussed in some details later in chapter four.

5. Other methods of handling liability for environmental damage

Tort law is not the only mean by which liability for environmental damage can be dealt with. Criminal law and administrative regulations are now put in place to impose statutory liability on polluters and persons infringing their statutory duties. This fact applies to almost all national jurisdictions, including Jordan and the United Kingdom. This approach of using public law instruments has some advantages over traditional civil liability. These advantages are due to the fact that traditional civil liability (tort law) is primarily concerned with the protection of private interests and rights. Whereas public law is not bound to the protection of private interests; because its main aim is to protect public interest, and therefore it is well fitted to environmental protection.

Another advantage of statutory liability is related to the trigger of its application; common law has been long criticised as a reactive method which has a remedial purpose; it only can be useful in compensating victims after the damage occurred. However, public law has a proactive approach; therefore it can be used to impose preventative measures which could be more efficient in the protection of the environment⁴¹ due to the fact that some environmental damage has irreversible nature, or even where the defendant has no sufficient financial resources to compensate the victims. Besides that, tort law or civil liability is all about compensating the victims of a wrongful conduct. Therefore, this weakens its role in restoring the damaged environment.

Further to these advantages, civil litigations are a costly and time consuming process. This argument has been established long ago in the Third Report of the Royal Commission on the Pollution of Rivers in 1867 where it was stated that "Bringing a

⁴¹ For further discussion see Howarth, David. "Muddying the Waters: Tort Law and the Environment from an English Perspective" (2002), 41, *Washburn Law Journal*, pp 469-513

common law claim is an expensive remedy”⁴². Therefore, not all victims will be able to bring actions to demand compensation for the damages they sustained as a result of environmental damage. Whereas public law does not suffer from this dilemma, but the fair comparison between civil law and public law liabilities requires admission of the fact that common law rules are developed by courts in an ad hoc manner, therefore, they may be able to respond pragmatically to the changing circumstances, while public law rules may lack this flexibility, since they anticipate the prohibited acts and fix liability for them according to a planned legislative policy. Besides this inflexibility, bureaucracy and conflict of competence among public bodies responsible for the implementation of public law are other dilemmas that affect the efficiency of public law.

Moreover, public law liabilities do not compensate victims of environmental damage; as the normal result of violating criminal law is the imposition of criminal punishments i.e. fines or imprisonment or both⁴³; which means that the need for civil liability will continue to be important in order to achieve just results.

5.1. Criminal law and environmental protection

Criminal law has always had a place in environmental protection regimes of all jurisdictions. Many criminal sanctions have been imposed on wrongdoers of environmental offences as well as the possibility of an action in tort to demand compensation for personal and property damage resulted from environmental damage.

In 1994 the United Nations issued a resolution regarding the role of criminal law in protecting the environment⁴⁴. this resolution invites Member States and relevant bodies to continue their efforts to protect nature and the environment by developing laws and fostering legal and technical cooperation and in particular developing criminal laws related to the protection of the environment on the basis of the “polluter pays” principle described in Principle 16 and the “precautionary principle” described in Principle 15 of the Rio Declaration and should provide for a wide array of

⁴² Third Report of the Royal Commission on the Pollution of Rivers, 1867

⁴³ In general the criminal fines are directed to the General Treasury.

⁴⁴ United Nations Resolution No 1994/15

measures, remedies and sanctions, consistent with the fundamental principles of criminal law, in order to ensure compliance with environmental protection laws. They should include regulatory and licensing powers, incentives, administrative enforcement mechanisms, and punitive administrative, civil and criminal sanctions for impairing or endangering the environment⁴⁵.

At the European level, all of the European directives and initiatives are mainly concerned with civil liability or with providing frameworks with administrative nature⁴⁶. However, the European Commission in 2000 issued a Proposal for a Directive on the Protection of the Environment through Criminal Law. And this Proposed Directive shall come into force in the near future⁴⁷. This Proposed Directive comes after the proposed Convention on the Protection of the Environment through Criminal Law, which has been introduced in Strasbourg in 1998. However, this draft convention needs to be signed and ratified by the member states. Article 13/2 states that: "This Convention shall enter into force on the first day of the month following the expiration of a period of three months after the date on which three States have expressed their consent to be bound by the Convention.

In Jordan, the Criminal Act 12/1960 and the Environmental Protection Act 12/ 1995 have dealt with criminal liability for environmental damages. Many provisions prepare to impose criminal penalties on those who commit one of the prohibited acts or omissions under these two acts⁴⁸. for example article 24 of the Environmental Protection Act provides that (A- The captain of any ship, boat or freighter shall be punished by a fine of not less than 10,000 J.D or jail for not less than one year, or both sentences, for disposing of any pollutant within the territorial waters or on the coastal areas as specified. B- In addition to Paragraph (A) the offender shall be charged to remove the pollutant and make good any damage caused within the period specified by the Court. In case of failure to act, The Corporation shall carry out the work at his

⁴⁵ There is a new trend toward considering environmental damages which caused to environmental during wars and armed conflict as a war crimes or crimes against humanity.

⁴⁶ As will be seen later when discussing the Directive on environmental liability with regard to the prevention and remedying of environmental damage, Chapter 5 of this thesis

⁴⁷ the Proposed Directive on the Protection of the Environment through Criminal Law provides that "The Member States will be required to bring into force the laws, regulations and administrative provisions necessary to comply with the Directive by 1 September 2003 at the latest

⁴⁸ Article 445 and 446 of the Jordanian Criminal Act 1960

own expense plus 25% for administrative expenses, but keep the ship boat or freighter with all its freight under custody till monies owed are paid)⁴⁹.

As for the UK, there are a wide variety of means available for the enforcement of environmental law. Criminal prosecution may impose a fine or imprisonment. This was found over the provisions dealing with environmental damage in many English statutes, mainly the Environmental Protection Act 1990⁵⁰, and the Water Recourses Act 1991⁵¹.

5.2. Special Kind of Statutory Liability: Contaminated Land Regime

The problems of soil contamination and historic pollution have found their way to the legal arena in the UK in the early 1990s. However, the problem is a deep rooted one dated back to centuries of industrialisation⁵². Before 1990 there was no statute or regulation directly dealt with the risk posed by contaminated land⁵³. A significant development in the UK regarding statutory liability took place with the introduction of the Contaminated Land Regime. This new regime is dealt with under Part IIA of the Environmental Protection Act 1990, which was introduced later by section 57 of the Environment Act 1995 and the Contaminated Land Regulation 2000. The main objective of this regime is to provide an improved system for the identification and remediation of contaminated land, where the contamination is causing unacceptable risk to human health or the wider environment. The extent of any risk will be assessed in the context of the current use and circumstances of the land.

The regime provides, for the first time, an explicit statutory definition of contaminated land, focussing on risks arising in the context of the current use and circumstances of land. It places specific duties on local authorities to inspect their areas in order to identify land falling within this definition and, where they do, to require its remediation in line with the "suitable for use" approach. The regime also provides

⁴⁹ Article 24- 28 of the Jordanian law of protection of the environment No 12,1995, available online at www.jibdc.org/laws_environment.html

⁵⁰i.e. Article 23, 118 of the Environmental Protection Act 1990

⁵¹i.e. Article 85 of the Water Recourses Act 1991

⁵² The House of Commons Environment Select Committee Report suggests that there between 5000 - 10000 contaminated sites in the UK.

⁵³ In 1986, Methane which has migrated from nearby landfill at Loscoe in Derbyshire caused a massive explosion resulted a significant damage.

detailed rules for assigning liabilities for contaminated land, based on the “polluter pays” principle.

Section 78 A (2) of the Environment Protection act defined contaminated land as “land which appears to the authority to be in such a condition, by reason of substances in, on or under the land, that: significant harm is being caused, or there is a significant possibility of significant harm being caused, or pollution of controlled waters is being, or is likely to be, caused”. It is clear that this definition is not conclusive; it focuses on the term ‘significant harm’; thus if the land is polluted but does not pose significant harm to the environment or human health, it falls out of the scope of this definition. For the purpose of implementing the regime, Section 78 (4) of the same act defines ‘harm’ as “... harm to the health of living organisms or other interference with the ecological systems of which they form part and, in the case of man, includes harm to his property”⁵⁴.

Following identification of the contaminated land, the local authority will need to investigate and identify the owners and occupiers and the appropriate person or persons (individuals or a company) to bear responsibility for remediation and associated costs. The primary responsibility will lie with the person or persons who knowingly permitted the pollutants to be in, on, or under the land. The local authority will then serve notice to the environment agencies, appropriate persons, owners and occupiers that the land has been identified as contaminated land. It will then undertake a consultation period with the interested parties of at least three months. A remediation notice will be served on the appropriate person unless agreed voluntary action has been undertaken. If the remediation notice is not complied with, then the authority may initiate proceedings.

According to polluter pays principle; where possible, those responsible for the contamination should meet the costs of remediation in full (Class A person(s)). However, if it is not possible to find any such person, responsibility will usually be passed to the current owner or occupier of the land (Class B person(s)).

Urgent action may be required due to the risk posed by the site; a remediation notice may not have been complied with; there may be an agreement with the appropriate

⁵⁴ The statutory guidance sets out what constitutes "Significant Harm" and a "Significant Possibility of Significant Harm" being caused.

person for the enforcing authority to carry out the work; or it may not be possible to find the appropriate person, in these cases competent local authority will have the duty to remediate the site and recover the costs afterwards.

The regime also encompasses a 'suitable for use' approach: That the land should be remediated to a level which is suitable for its current use, designated use (e.g. under planning permission), or intended use, rather than for any future use, the reason for setting up this remediation standard is that, land contamination only creates a problem when: the land is used for an unsuitable purpose; and where contamination is migrating and significantly affecting controlled waters or adjacent land and/or receptors such as people and animals⁵⁵.

Form the above brief it is clear that the contaminated land regime has an administrative nature; its application is wholly entrusted to local authorities which are administrative bodies. As a result, the regime avoids the problems involved in civil liability, such as proving fault, causation, and most importantly avoids litigation's cost.

The main criticism for this regime is that, although it is based on the polluter pays principle which means that only the actual polluter will bear the cost of cleaning up and remediation of the contamination he caused, there is a possibility that such polluter may be unidentifiable or can not be found and therefore, innocent landowners or occupiers of the contaminated land will bear the cost of remediation. This unjust result can be alleviated by setting up a public fund based on general taxation to the purpose of cleaning up contaminated land and past pollution whenever the responsible polluter is unidentifiable or can not be found.

6. Environmental protection and human rights:

The link between human rights and environmental protection has become increasingly apparent in the last few decades. Accordingly, it is now widely claimed that human beings are entitled to the right to a healthy environment. Many international and

⁵⁵ For a detailed explanation, see Tromans. Stephen & Turmall-Clarke. Robert. "Contaminated Land: The New Regime". 2000. Sweet & Maxwell Ltd.

national instruments binding and non-binding since the 1972 UN Stockholm Conference have talked about this idea⁵⁶.

In 1992, the Rio Declaration affirmed the same right but in such a wording which constitutes uncertainty about the existence of such a human right. Some writers argue that even though both Declarations include these articles; “it will be exaggeration and over optimism to say that there is what so-called environmental right”⁵⁷.

Principles One and Three of the Rio Declaration provided that: “Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature”, and that the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations”⁵⁸.

Whether Stockholm and Rio Declaration are binding or not, each of them gave an impetus to notion that protecting human rights and environmental protection are indispensable and interrelated issues. Therefore, it is no surprise that more advanced idea has been suggested arguing that the environment and its elements- which are non human elements- deserve protection for their own right. This was the idea previously suggested by Christopher Stone in which he argued that environmental objects should have to be protected merely because of their importance, and to be granted legal standing to demand compensation if contaminated by human’s activities⁵⁹.

In 1982, the UN General Assembly adopted the World Charter for Nature, which was based on the principle that the environment and living resources are to be protected for their own worth. In 1990 the UN General Assembly declared that “all individuals are entitled to live in an environment adequate for their health and well-being”. The

⁵⁶ Principle One of Stockholm Declaration reads as follows “Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations

⁵⁷ See Desgagne, R “Integrating environmental values into European Convention on human rights”. (1995), 89, *American Journal of International Law*, p 891 And also Thornton ,T & Tromans, S “Human rights and environmental wrongs, incorporating the European convention on human rights some thoughts on consequences for U.K. environmental law”(1999), 11 (1), *Journal of Environmental Law* ,p 114

⁵⁸ Principle 1 and 3 of the Rio Declaration, 1992

⁵⁹ Stone argued that: “It is not inevitable, nor is it wise, that natural objects have no rights to seek redress in their own behalf. It is no answer to say that streams and forests cannot have standing because streams and forests cannot speak...One ought, I think, to handle the legal problems of natural objects as one does the problems of legal incompetents”, See Christopher D. Stone, “Should Trees Have Standing? Toward Legal Rights for Natural Objects”, In “Should Trees Have Standing? And other essays on Law, Morals, and the Environment” 25th Ed. Oceana Publications Inc. 1996. p 12

⁴⁶UNGA Resolution 2398 (XXII), 3, December, 1968.

United Nations Commission on Human Rights also adopted a resolution in 1990, entitled "Human Rights and the Environment", which again reaffirmed the relationship between preservation of the environment and the promotion of human rights⁶⁰.

Moreover, in 16 May 1994, an international group of experts on human rights and environmental protection convened in Geneva and drafted the first-ever declaration of principles on human rights and the environment⁶¹.

The 1994 Draft declaration of Principles on Human Rights and the Environment represents a comprehensive framework which provide for an extensive wide range of environmental rights. The core of this Declaration is based on the principle that, all human beings, including future generations, have a right to an environment adequate to their health, well-being and dignity, as well as the responsibility to protect the environment. These all above-mentioned principles reveal that a healthy environment is a pre-condition to the enjoyment of international-guaranteed human rights. Therefore, environmental protection is an essential instrument in the effort to secure the effective universal enjoyment of human rights.

This is at an international level. Turning to the domestic level, more than 60 nations have constitutions or legislations provide for environmental rights. Some countries including Spain⁶², Portugal, Turkey, Slovakia, Slovenia, Hungary, Poland and South Africa have explicit provisions provide for environmental rights⁶³. Some other countries, for example, Germany, the Netherlands, Greece, Sweden, and India⁶⁴,

⁶⁰ Resolution 1990/41, 6, March, 1990.

⁶¹ The 1994 Draft declaration of Principles on Human Rights and the Environment, available online at <http://www.fletcher.tufts.edu/www/1994-decl.html>.

⁶² Article 45 of the Spanish Constitution provides that "1. Everyone shall have the right to enjoy an environment suitable for personal development and the duty to preserve it. 2. The public authorities, relying on the necessary public solidarity, shall ensure that all natural resources are used rationally, with a view to safeguarding and improving the quality of life and protecting and restoring the environment. 3. Anyone who infringes the above provisions shall be liable to criminal or, where applicable, administrative penalties as prescribed by law and shall be required to make good any damage caused".

⁶³ The French Government in June 2003 backed plans to enshrine the right to a clean environment in the French constitution,

⁶⁴ The Indian Supreme Court has proclaimed that the right to a pollution-free environment is part of the right to life under the Constitution and has developed its own environmental jurisprudence, for example, it has ordered an end to the pollution of the River Ganges by tanneries and special measures for the protection of the Taj Mahal from air pollution damage. Moreover, In India, Art.51A of the Indian Constitution recognises environmental protection as a fundamental duty. It provides that a

recognise only environmental duties. However, these provisions are intended to emphasise the importance of environmental preservation and prioritise it as a social value, but it do not provide a clear mechanism for the implementation of such right or duty⁶⁵.

Regarding the situation in Jordan, neither the constitution nor any other legislation contains provisions about environmental protection and human right to a healthy and clean environment. Therefore, this issue will depend significantly on the judicial approach towards deriving environmental rights from other constitutional provisions dealing with citizens' rights.

The UK has no constitutional provision provides environmental rights to individuals⁶⁶. However, the Human Rights Act came into force in October 2000 and incorporates into UK law certain rights and freedoms set out in the European Convention on Human Rights that may have a potential application in environmental context, such as the protection of private and family life and the right to property, but the Act made no explicit reference to environmental rights.

6.1. Does the protection of Human Rights relate to Environmental Liability?

As we noticed above, a link-to different degree- has been established between the protection of human rights and the protection of the environment. A question may be raised as to why should we link the protection of the environment to the protection of human rights? And does this link enhance environmental liability including civil liability for environmental damage? And if so; to what extent this enhancement is important?

To answer this question one may think about another question as to what do we intend to protect by making such a link between two important values? Is it the environment, or human rights and ultimately human beings themselves, or both?

citizen has responsibility to "protect and improve the natural environment including forests, lake, rivers and wildlife and to have compassion for living creatures.

⁶⁵ Such as Germany, Austria, Netherlands, Switzerland, Verschuuren, J "The constitutional right to environmental protection" an article available online at www.till.kub.nl/data/topic/envartcult.html.

⁶⁶ The UK does not have a written Constitution. However, its constitutional framework is to be found in customs, parliamentary traditions, and the Bill of Rights.

I do believe that as human beings are only a component in the wider environment, thus, the protection assigned to them is in one way or another protection to the environment itself; by protecting its components.

Interestingly, this view which placed human beings as a component in the environment means that, the protection offered to one; will have a positive outcome in protecting the other, and therefore makes the link between environmental protection and the protection of human rights inevitable and also desirable in a comprehensive environmental thinking.

Environmental liability -and law in general- is only one instrument in the environmental protection package. Environmental protection requires for example a sound environmental education, knowledge advancement, precautionary thinking, and environmentally strategic planning and more importantly efficient legislations.

In terms of civil liability for environmental damage; protection of human rights has some advantages;

- 1- Liability rules in general create more incentives to achieve an acceptable standard of environmental protection, this may be due to the deterrent effect that liability has.
- 2- Creating actionable human rights -in the event of environmental damage occurred- avoids some restrictions facing traditional civil liability rules. As we shall see later, many legal problems are to be overcome before the victim of environmental damage can establish his case and get compensation for his injury. For example, the requirement of property right or interest in land affects sharply the right of standing in environmental damage cases in civil litigations⁶⁷.

6.2. Judicial protection for 'environmental' human rights

As a result, the English courts attempted to interpret some protected human right so as to derive what might be seen as environmental right as was the case at *Marcic v Thames Water Utilities Ltd* [2001]. Disappointingly, this case has been recently overruled by the House of Lords. This case has two dimensions a common law action

⁶⁷ *Hunter v Canary Wharf Ltd* [1997] 2 All ER 426

under nuisance which will be discussed later⁶⁸, and a claim under the human Rights Act 1998 and the European Convention on Human Right. The case was concerned with liability of a water company for leaks in sewers⁶⁹. Mr Marcic started court proceedings in May 1998 seeking an injunction restraining Thames Water from permitting the use of its sewerage system in such a way as to cause flooding to his property, a mandatory order compelling Thames Water to improve the sewerage system, and damages. He founded his case on the basis of (1) a common law claim in nuisance and (2) a claim under the Human Rights Act 1998 that Thames Water as a public authority has acted incompatibly with his Convention rights under article 8 which guarantees respect for family life and home and article 1 of the First Protocol (protection of property)⁷⁰.

Although Mr Marcic succeeded at first instance in arguing a breach of human rights, Thames Water, being a public body for the purposes of the Human Rights Act, was in breach of article 1 of Protocol 1 to the Convention, which guarantees the right to peaceful enjoyment of one's possessions. Damages were therefore awarded under section 6(1) of the Human right Act 1998 but only for the period during which the Human Right Act had been in force, i.e. since October 2000⁷¹, but the House of Lords considered that the claim under the Human Rights Act 1998 is ill-founded, citing the decision of the Grand Chamber of the European Court of Human Rights in *Hatton v United Kingdom* 2003, which makes it clear that the Convention does not

⁶⁸ In finding against the defendant, the Court of Appeal made an interesting point when it ruled that "although liability in nuisance had been associated with a positive action by the defendant, liability could be imposed even where the owner/occupier was not directly responsible for the nuisance. Indeed, the owner/occupier had a positive duty to abate the nuisance. The scope of that positive duty was to be measured by what was reasonable, having regard to the particular circumstances of both parties". See *Marcic v Thames Water Utilities Ltd* [2001] 3 All ER 698, *Marcic v. Thames Water Utilities Limited* [2003] UKHL 66

⁶⁹ Since June 1992 sewers provided by Thames had occasionally discharged to Mr Marcic's garden. This discharges damaged the fabric of his house, although Marcic had successfully prevented it from entering his home. Mr Marcic sued for damages and an injunction requiring Thames to alleviate the flooding. Mr Marcic relied on nuisance, negligence and statutory duty, and he also argue that Thames breached his right to peaceful enjoyment of one's possessions under the EC Human Rights Convention and the Human Rights Act

⁷⁰ Section 6 (1) of the Human Rights Act 1998 (HRA) provides that "it is unlawful for a public authority to act in a way that is incompatible with the human rights set out in the European Convention on Human Rights" (the European Convention for the Protection of Human Rights and Fundamental Freedoms. Rome 4 November 1950).

⁷¹ the Court of Appeal concluded that Thames Water had failed to persuade it that Judge of first instance was wrong to hold that Thames had infringed Mr Marcic's human rights since the Act came into force, infringed Mr Marcic's right to respect for his home under Article 8 of the Human Rights Convention and his right to the peaceful enjoyment of his possessions under Article 1 of the first protocol to the convention. It followed that Thames were in breach of Section 6(1) of the Human Rights Act. See *Marcic v Thames Water Utilities Ltd* [2001] 3 All ER 698

accord absolute protection to property or even to residential premises. It requires a fair balance to be struck between the interests of persons whose homes and property are affected and the interests of other people⁷².

This ruling made by the House of Lords in *Marcic's* case is to be considered as a policy decision which has to strike a fair balance between the competing interests of the individual and the community. Their Lordships noted that: "the rule that the defendant is under obligation to take positive steps as reasonable to prevent nuisance is only applicable between individuals but their Lordships doubted its existence when one is dealing with the capital expenditure of a statutory undertaking providing public utilities on a large scale. The matter is no longer confined to the parties to the action... so the effect of a decision about what it would be reasonable to expect a sewerage undertaker to do for the plaintiff is extrapolated across the country. This in turn raises questions of public interest. Capital expenditure on new sewers has to be financed; interest must be paid on borrowings and privatised undertakers must earn a reasonable return. This expenditure can be met only by charges paid by consumers"⁷³. However, this approach does provide rather a narrow interpretation of human rights and may be considered as a failure in the wider environmental sphere.

6.3. The ECHR and the Protection of Environmental Human Rights:

Some writers noted that "there is a clear trend towards a constitutional recognition of environmental values. However, this recognition does not necessarily mean that affirmative right to a healthy and pollution-free environment is granted"⁷⁴. However, the treaties establishing the European Community did not provide a right to a healthy environment, nor did the European Convention on Human Rights⁷⁵.

This can be considered as a drawback in Europe which is considered to be developed in its human rights record. However, the European Court of Justice prepared to consider a creative use of the right to respect for private and family life as well as the

⁷² *Hatton v United Kingdom* [2004] 1 All ER 135

⁷³ *Marcic v. Thames Water Utilities Limited* [2003] UKHL 66

⁷⁴ Michael. Bothe "The right to a healthy environment in the European Union", Kluwer Law International, 1998

⁷⁵ The right to the conservation of the environment is very much like the human rights. See Alexandre.K "The future of environmental law in Europe". In "Understanding US and European Environmental law: A practitioner's Guide" edited by Turner. T & Pascale. K. 1989. Graham and Trotman/ Martinus Nijhoff. P147-154.

right to peaceful enjoyment of possessions, in order to remedy environmental harms, and it went further when held unanimously that the right to respect for private and family life was infringed by failure to provide local people with information about the risk from a nearby chemical factory⁷⁶.

This creative trend came after the previous position which the European Commission of Human Rights expressed in 1976 when it dismissed an application on the ground that: "No right to nature conservation was as such included among the rights and freedoms guaranteed by the convention". This development in the European environmental rights came due to the influence left by the international awareness in the environmental affairs in general and it is likely to go further after the development of international documents starting with the Stockholm Declaration⁷⁷.

In the case of *Guerra and Others v Italy* 1998 where the applicants lived close to a chemical factory that had emitted large quantities of pollutants, they alleged that such a pollution infringed their right to respect for private life and home under article 8 of the ECHR and also their right to life under article 2 of the Convention. The Court found that severe environmental pollution may affect individuals' well-being and prevent them from enjoying their homes in such a way as to affect their private and family life adversely. Therefore, The Court held that Italy did not fulfil its obligation to secure the applicants' right to respect for their private and family life, in breach of Article 8 of the Convention and therefore award damage and that the Italian State had failed to take steps to provide information about the risks and how to proceed in the event of a major accident. But the Court found it unnecessary to consider the case under Article 2 (Right to life) as alleged by the Plaintiffs⁷⁸.

Moreover, in *Lopez Ostra v. Spain* (1995), the plaintiff was successful in relying on article 8 and 3 of the Convention. She and her family lived next to a waste treatment plant for tanneries. The contamination from the plant caused health problems and nuisance. The plaintiff complained of the town Lorca municipal authorities' inactivity in respect of the nuisance caused by a waste-treatment plant situated a few metres

⁷⁶ Thornton, T & Tromans, S "Human Rights and Environmental Wrongs: Incorporating the European Convention on Human Rights some thoughts on consequences for U.K. environmental law"(1999), 11 (1), *Journal of Environmental Law*, p 114

⁷⁷ Desgagne, R "Integrating environmental values into the European Convention on Human Rights", (1995), 89, *American Journal of International Law*, p263

⁷⁸ *Guerra v Italy* (116/1996/735/932) 4 BHRC, p 63

away from her home. She asserted that she was the victim of a violation of the right to respect for her home that made her private and family life impossible. the Court considers that The Spanish authorities failed to take necessary measures to protect the plaintiff's rights, nor it succeed in striking a fair balance between the interest of the town's economic well-being - that of having a waste-treatment plant - and the applicant's effective enjoyment of her right to respect for her home and her private and family life⁷⁹.

However, the significance of the above-mentioned cases is not to be overestimated so as to say that there is a solid recognition of environmental human right; because they do not represent a steady approach towards interpreting the protected human rights in order to give them an environmental application. In *Hatton and Others v. the United Kingdom* (2003) the Court ruled that: "Environmental protection had to be taken into account by Governments in acting within their margin of appreciation and by the Court in its review of that margin, but it would be inappropriate for the Court to adopt a special approach to environmental protection by referring to a special status of environmental human rights"⁸⁰.

This conclusion can be derived from cases in which the Court opts to a different approach calling for a fair balance to be struck between conflicting interests i.e. environmental quality and whole economy. In *Powell and Rayner v United Kingdom* (1990), a case brought by a nearby resident against the UK authorities. The plaintiffs claimed that they sustained a terrible noise because of intensive night flights in Heathrow airport. Mr Powell and Mr Rayner alleged violation of their right to respect for their private life and their home (Article 8 of the Convention). However, the court ruled that: "while admitting that plaintiffs sustained a noise but, Heathrow airport is as so important to the UK economy that the interference in local resident's right of private life and their home by noise was not disproportionate". Therefore the Court ruled that there is no violation of Article 8 of the ECHR⁸¹.

In *Hatton and Others v. the United Kingdom* (2003), eight applicants, all British citizens, live or lived near Heathrow Airport, London. They complained that the

⁷⁹ *Lopez Ostra v. Spain* App 16798/90 (1995) 20 EHRR 277

⁸⁰ *Hatton and Others v. the United Kingdom* [2004] 1 All ER 135

⁸¹ *Powell and Rayner v United Kingdom* (1990) 172 Eur Ct HR Ser A, 12 EHRR 355, See also, *Khatun and 180 others v UK* (1 July 1998, unreported)

Government policy on night flights at Heathrow Airport introduced in 1993 gave rise to a violation of their rights under Article 8 of the Convention and that they were denied an effective domestic remedy for this complaint, contrary to Article 13 of the Convention⁸².

In finding in favour of the UK government, the court ruled that there was no violation of Article 8 since “a fair balance had been struck between the competing interests of the individuals affected by the night noise and the community as a whole. Under Article 8/ 2 of the Convention, restrictions on the right to respect for private and family life are permitted in the interests of the economic well-being of the country and for the protection of the rights and freedoms of others. It was therefore legitimate for the Government of the UK to have taken into consideration the economic interests of the airline operators and other enterprises and the economic interests of the country as a whole”⁸³.

In reasoning its judgment The Court re-iterates the fundamentally subsidiary role of the Convention. The national authorities have direct democratic legitimation and are - in principle- better placed than an international court to evaluate local needs and conditions, the court went on to say that “In matters of general policy, on which opinions within a democratic society may reasonably differ widely, the role of the domestic policy maker should be given special weight” summing up by ruling “regard must be had to the fair balance that has to be struck between the competing interests of the individual and of the community as a whole; and the State enjoys a certain margin of appreciation in determining the steps to be taken to ensure compliance with the Convention”. The Court found that the British authorities had not overstepped their margin of appreciation by failing to strike a fair balance. It concluded that there had been no violation of Article 8.

⁸²Article 8 of the Convention provides: "1. Everyone has the right to respect for his private and family life, his home and his correspondence. 2. There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others."

⁸³ *Hatton and Others v. the United Kingdom* [2004] 1 All ER 135

In light of the ruling in *Hatton* case, it is clear that the debate over the existence of environmental human right is still unsettles, the ECHR emphasised that States do enjoy a margin of appreciation in the decision-making process especially those related to matters of general policy, on which opinions within a democratic society may reasonably differ widely; because national authorities have direct democratic legitimation and are better to evaluate local needs and conditions than an international court⁸⁴.

6.4. Some environmental rights:

Environmental rights which received attention and have been adopted in most of the environmental instruments can be divided into two categories substantive rights and procedural rights; substantive environmental rights which includes

a- The right to a healthy environment:

Principle One of Stockholm Declaration states “Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations”. Also the Rio Declaration states: Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature”.

b- The right to development:

This right was first mentioned in Rio Declaration 1992 in principle three which read (The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations).

⁸⁴For more comments on *Hatton* case see A. Layard, “ Human Right in the Balance- *Hatton* and *Marcic*”, (2004), 6 (3), *Env L. Rev.* p196

These two rights are considered to be substantive environmental rights whereas other rights are considered to be procedural and include⁸⁵:

c- The right to participation:

This right was mentioned in Rio Declaration in principle 20 (Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development). And principle 21 which provides that (The creativity, ideals and courage of the youth of the world should be mobilized to forge a global partnership in order to achieve sustainable development and ensure a better future for all).

d- The right to information:

This right was mentioned in Rio Declaration in principle 22 (Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development”).

e- The right to have access to justice:

Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention) was drafted and signed in 1998. Article 1 of the Convention says: (‘In order to contribute to the protection of the right of every person of present and future generations to live in an environment adequate to his or her health and well-being, each Party shall guarantee the rights of access to information, public participation in decision-making, and access to justice in environmental matters in accordance with the provisions of this Convention.’⁸⁶).

⁸⁵ Notably, the *Lopez Ostra v. Spain* (1995) and *Guerra and Others v Italy* (1998) cases were essentially brought because of the claimed violation of procedural rights.

⁸⁶ Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention) signed in 1998.

Chapter three:

Civil environmental liability in Jordan

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1. Introduction:

In this chapter, this study is attempting to explore the situation of environmental liability in Jordan in order to examine to what extent Jordan has a regime to handle environmental damage.

Jordan is considered to be a developing country, with no significant natural resources or industries other than phosphates, cement, potassium and agricultural productions on which rely a major part of its population and economy¹.

Jordan's approach towards achieving sustainable development will be examined since sustainable development is the far-reaching goal for which all nations set out their environmental protection regimes. Sustainable development attempts to minimise resource consumption, including raw materials, water and energy, as well as the exploitation of un-renewable resources, in order to preserve such resources for the benefit of present and future generations.

It's self-evident that as a developing country Jordan has a vulnerable situation regarding any environmental liability regime that should be applied. This particular situation was given to all developing countries according to principle 11 of Rio Declaration 1992 which reads as follows : (Environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply. Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries)².

Jordan is a developing nation with significant agricultural production and moderate industrialisation. It lacks energy sources; therefore, it relies totally on imports of fossil fuels. At the same time, Jordan faces serious pollution for its limited fresh water reserves, noxious smells, soil contamination from landfills due to the increasing amounts of waste generated by a growing population. These difficulties facing Jordan as well as many other developing countries are the result of their attempt to cope with the spiralling demands of rapid population growth, reduce poverty and environmental

¹ Z Krasham "Environmental legislations in Jordan", 1995, p 4

² Principle 11 of Rio Declaration 1992

degradation. The fact that Jordan is a developing nation suggests that tightening environmental protection measurements would not allow urban development, and may worsen further the economic difficulties that Jordan facing.

This chapter is divided into two parts, part one is dealing with the institutional and legal framework for environmental protection in Jordan, whereas the second part is devoted to discuss civil liability for environmental damage within the related Jordanian legislations. A brief review of the environmental problems in Jordan is to be mentioned since the nature and origin of these problems significantly affects the way Jordan handle environmental protection.

2. Environmental problems in Jordan:

Jordan suffers from many environmental problems which can be divided into groups according to the factor of these problems.

2.1 Demographic factors:

Although the population of Jordan is relatively small, Jordan still suffers from a demographic problem. Jordan's demographic problems resulted from two main reasons, political and natural. Until the beginning of the 1970s, Jordan has no major environmental problems. However, the fact that Jordan witnessed unexpected circumstances in the 1948, resulted in a huge humanitarian crisis. Arab-Israeli conflict enforced hundreds of thousands of Palestinian people to flee into Jordanian territories, those homeless people has to be sheltered and provided with the essential human's needs; food, housing, health care, education, employment and other life equipments³.

As a result of the Arab-Israeli war of 1948, Jordan was the country receiving the largest number of Palestinian refugees originating from the area that today is the State of Israel. The Palestinian refugees, together with the Palestinians displaced from the West Bank who fled to Jordan after the 1967 war, today make up 44 percent of the total population in Jordan⁴.

This was the major demographic problem that put enormous pressure on the infrastructure and caused some of environmental degradation; since the movement of those refugees resulted in a considerable change in the Jordanian's life style and their patterns of consumption. Besides the sudden added demand on the country's services

³ T. Sufian. "Statues of infrastructure in Jordan" 1991. P 194

⁴ Some un-official statistics raised up this percent to reach around 60% and sometimes 75%.

sector and infrastructures as well as the exceptional expansion of cities and urban suburbs.

Below is a table that gives some figures about the approximating number of the “registered” Palestinian refugees in Jordan as for 1995⁵. However, in practice this number should be taken with caution since thousands of refugees are living in Jordan without being registered with the UNRWA and the inheritance of the ‘Refugee’s Status’⁶.

Area	Camps	Not in Camps	TOTAL
North Amman	92,217	290,613	382,830
Jabal el-Hussein	28,754		
Baq'a'a	63,463		
South Amman	40,901	298,633	339,534
Amman New Camp (Wihdat)	39,861		
Talbieh	1,040		
Zarqa area	45,605	281,733	327,338
Zarqa	15,025		
Marka	30,580		
Irbid area	59,465	179,030	238,495
Irbid	19,762		
Husn (martyr Azmi al-Mufti)	16,039		
Jerash	11,471		
Souf	12,193		
TOTAL	238,188	1,050,009	1,288,197

This table clearly shows that the link between political conflict and environmental degradation is an unavoidably recurrent theme in the Middle East. The impact of the state of war on the environment and the impact of occupation in West Bank affect badly the demographic stability in Jordan and other neighbouring countries.

Recently Jordan was forced to shoulder a very heavy burden because of the Gulf Crisis of 1990-91 when 350,000 permanent returnees settle down in Jordanian baggiest cities and urban settlements fleeing back from Kuwait, Iraq and other Gulf States. The country faced massive immigration, rapid demographic growth and urban

⁵ Source: UNRWA, Map of UNRWA's Area of Operations in Jordan, June 1995

⁶ Department of Palestinians' Affairs- and Jordanian Foreign Ministry always raise doubts regarding the real number of the Palestinians refugees in Jordan.

migration. All of these imposed great pressure on Jordanian society, infrastructure and natural resources, with a negative impact on the socioeconomic development and health of the country⁷.

As for the natural dimension, Population growth in Jordan is one of the highest in the world. While Jordan population was around 700,000 thousands in 1940, Jordan has recently seen a high annual population growth rate approximately 3.4 percent⁸. Jordan has a total population of 5.2 million people as for December 2001⁹. 78 percent of Jordan's population reside in cities and urban centres. The municipality of greater Amman alone accommodates more than 48 % of Jordan's population, and by the year 2012 Jordan's population is expected to double reaching about 10 millions. The high natural population growth rate can be attributed to relatively advances in extending life expectancy and reducing infant mortality, combined with the comparatively slower reduction in high fertility rates¹⁰.

In the last three decades, pressures began to affect the country and its environment. The population dramatically increased, Jordan became more industrialised, and people's lifestyles began changing. As a result, consumption of water increased, motor vehicles became more commonplaces and the rate of urbanism briskly spread along the country. Moreover, poverty rate in Jordan is relatively high¹¹. This situation affects the environment; as it leads to congestion, overcrowding and settlement on land that is poorly suited or not equipped for urban use. The lack of infrastructure facilities, particularly sewage and waste collection led to pollution and unhealthy circumstances¹². Notably the Brundtland report 1987 "Our Common Future" which was primarily concerned with securing a global equity, redistributing resources towards poorer nations whilst encouraging their economic growth, illustrated how the

⁷ Alrai Newspaper, Amman- Jordan, 28 April 1991, issue No: 7814

⁸ "A finite world can support only a finite population; therefore population growth must eventually equal Zero. There will be no technical solution can rescue us from the misery of overpopulation, but to limit freedom to breed since this freedom will bring ruin to all". For further reading see "The Tragedy of the Commons" by G. Hardin 1968.

⁹ The last National Population Census held in Jordan in December 2001.

¹⁰ The Jordanian National Agenda 21, Towards Sustainable Development, p 35 and 82

¹¹ According to official statistics the poverty rate in Jordan is around 21%. Ministry of Social Affairs Annual Report 2002.

¹² The Jordanian National Agenda 21, Towards Sustainable Development, P 115

problems of poverty and population are interconnected, and noticed that poverty has many adverse environmental effects¹³.

Urban areas in Jordan as a developing country are growing rapidly, and the rural dwellers tends to be poorer than their urban counterparts in the developed world, and are more likely to lack access to drinking water, sanitation, and other services. This fact unfortunately encourages many people to migrate from their rural areas to settle down in cities and urban slums. And as Jordan is an agricultural developing country this kind of migration adversely affects the developmental programmes and country's gross domestic product. In Jordan for example, although agriculture is still one of the major employers and source of foreign exchanges, its contribution in the gross domestic product according to governmental figures is only about 12%¹⁴.

2.2 Geographical 'natural' factors:

Unlike the UK, Jordan mainly is arid and semi-arid country. Almost 90 % of the land receives less than 200 mm of rainfall annually. This is reflected in its soils, in the land cover of range grasses and forest, and also the way Jordanians use their land. Therefore, most of the economic activities take place on only 10 % of its lands and the competition among different user groups for these lands is therefore intense. Flora is represented in plant life, which is not abundant in Jordan, as much of the region consists of steppe or desert. Whereas a variety of fauna is settled in the Jordanian desert including some of rare species such as badger, boar, fox, ibex, hyena, mongoose, partridge, Oryx, gazelle and camel¹⁵.

As for water resources, Jordan is considered to be among the ten poorest countries in water suppliers, because fresh water resources are very limited¹⁶. On a global scale a country is considered to have water scarcity when it has less than 3000 m³ of renewable fresh water available annually for each person of its population. Jordan had 308 m³ available as for 1990. The current demand for municipal, industrial, and agricultural water in Jordan exceeds sustainable water supply, and ground water resources are being tapped beyond their renewable yield. Through the dry winter in 1998/99 water problems in Jordan has tragically increased.

¹³ Bruntland Report (1987), "Our Common Future": The World Commission on Environment and Development, Oxford: Oxford University Press.

¹⁴ Ministry of Agriculture Annual and Rural Affairs Report 2002

¹⁵ The Jordanian National Agenda 21, Towards Sustainable Development, p 201

¹⁶ Ministry of Water and Irrigation Annual Report 2002

It's to be mentioned that an important factor in the water shortage Jordan endured, is the political instability in the region of Meddle East¹⁷. In October 1994 Jordan signed a peace treaty with the state of Israel to establish peace between the two-neighbouring countries; the treaty has many environmental provisions related to water protection, natural resources and tourism. Jordan and Israel acknowledge the importance of the ecology of the region, its high environmental vulnerability and the need to protect the environment and prevent danger and risks for the health and well- being of the region's population.

They recognise the need for conservation of natural resources, protection of biodiversity and the imperative of attaining economic growth based on sustainable development principles. Both Parties agreed to cooperate in matters relating to environmental protection in general and to those that may mutually affect them. They also agreed to take the necessary steps both jointly and individually to prevent damage and risks to the environment in general and in particular those that may affect human health, natural resources and environmental assets in the two countries respectively.

In light of this commitment, Israel and Jordan shall cooperate in finding water resources to supply Jordan of an additional quantity of (50) MCM/year of water of drinkable standards. To this end, the Joint Water Committee was under the obligation to develop a plan to supply Jordan with the above mentioned additional water. This plan shall be forwarded to the governments for discussion and decision. Moreover, Israel and Jordan agreed to prohibit the disposal of municipal and industrial wastewater into the course of the Yarmouk and Jordan Rivers before they are treated to standards allowing their unrestricted agricultural use. Implementation of this prohibition shall be completed within three years from the entry into force of the Treaty¹⁸.

Apart from the Phosphates, Potassium, and Cement mines in the south, Jordan has very few and limited mineral resources significant for commercial use. And even with its limited mineral resources, Jordan suffers from some environmental problems

¹⁷ G. Sameh.& F.Yahya, "The introduction to environmental khnowdage"1998, P 185

¹⁸ Israel-Jordan Peace Treaty- Annex II, 1994.

related to its mineral and industrial sectors; because some of these resources are situated in cities and populated areas¹⁹.

Jordan has many tourist attractions, stunning landscapes, fascinating cultural heritage, world-class historic and religious sites and wildlife reserves spread along the country. Therefore, tourism has emerged as one of Jordan's most rapidly growing economic sectors, ranking second in terms of foreign exchange earnings. However, this growth in tourism activities put pressure on the tourist infrastructures threatening Jordan's tourism attractions; therefore, comprehensive sustainable ecotourism strategies are urgently needed to maintain a sustainable growth in Jordanian tourism sector.

In the last few years, Jordan has addressed the threats to the environment which affects tourism sector, beginning the process of reversing environmental decline to preserve flora and fauna varieties. Under Jordanian laws hunting is now carefully controlled by the Royal Society for the Conservation of Nature. Laws now include the outlawing of automatic weapon hunting and shooting from vehicles. The Royal Society for the Conservation of Nature set out the hunting seasons, the maximum quota of animals to be hunted and areas where hunting is allowed and the complete banning of Hunting many protected areas such as Ajloun, Wadi Mujib, The Azraq Wetland Reserve, Shomari and Dana Reserves. Moreover Jordan has adopted a green policy and initiated a number of forestation campaigns as a resort for habitats and rare species and to help purification the air, abate soil erosion and increase its tourist attraction.

2.3 Industrial factors:

The phosphate industry in the south of Jordan, and Jordan Cement mines in the city of Fuheis and Mahes are the major source of foreign currency in Jordan. However, mining and mineral processing have serious and in some cases irreversible impacts on the environment and the well being of the local populations. This sector also extracts water beyond sustainable limits and is one of the country's highest industrial consumers of energy, air and water degradation due to mining, transport, and processing which negatively affects local human and wildlife populations²⁰.

¹⁹ For example, the main cement mines in Jordan is situated in the city of Fuheis and Mahes.

²⁰ a published working paper, Jordanian General Corporation for Environmental Protection, 2000.P 18. &. U. Muthana "Environmental pollution" Wael Publisher.Amman.2000, p 48

Other environmental problems find their source in the process of refining oil. The only Jordanian oil refinery is situated in an urban centre (the city of Zarqa) with huge number of population, and therefore, there was a suffering from air pollution, traffic jams, and nuisance in this urban city. Other industries such as Electric generators, Plastic industry, water purification plants, Waste management, and chemical industries contribute in the air pollution problem in Jordan; motor vehicles are another factor responsible for air pollution.

3. Environmental protection framework under Jordanian legal system:

It become clear from the above presentation that the main environmental challenges in Jordan are, the limited natural resources and the vulnerability of such resources, water shortage, random urbanism; deforestation; overgrazing; soil erosion; desertification, air pollution, municipal and industrial waste²¹.

In response to these environmental challenges Jordan passed its Law for Protection of the Environment, No. 12 of 1995. This law contains provisions for obtaining licenses for all new activities that are likely to have adverse environmental effects. Developers are required to meet some environmental criteria before being authorised to embark in their activities²². According to Article 15 of the Act, developers are required to meet these new criteria. Jordan nowadays is in the process of drafting a bylaw to organise the procedures required to undertake environmental impact assessment in advance before establishing any industrial plant or any other activity that may have adverse environmental effects. This trend is now to be judged when the government of Jordan requires the Cement Factories in Fuheis to conduct an environmental impact assessment regarding the use of petroleum coal in the process of manufacturing. A high royal committee of expertise has been appointed to conduct such an assessment, and to provide the cabinet with its conclusion and recommendation.

As for the UK, the EC Directive No 85/337/EEC of 1985 as amended by the Directive 97/11/1999 requires Member States to ensure that projects likely to have significant environmental effects by virtue of their size, location are assessed regarding their

²¹ G. Sameh & F. Yahya "The introduction to environmental knowledge" 1998, P 179 & The Jordanian National Agenda 21, Towards Sustainable Development. P 60.

²² A published working paper, Jordanian General Corporation for Environmental Protection, 2000. P 27

environmental impact before being authorised. This directive has a direct effect in the UK²³. However, some cases suggested that it has not a direct effect²⁴, despite this argument; the directive was implemented in England and Wales by the Town and Country Planning Regulations 1988.

The Jordanian Law for Protection of the Environmental set out a framework to handle environmental affairs within Jordanian jurisdiction. It states in Article 3 that: “ An official general corporation called (General Corporation for Protection of the Environment) shall be established as a corporate entity which has administrative and financial independence, and in this respect, the right to act in all legal procedures including the ownership of liquid assets or property, acceptance of gifts, endowments, inheritance, ‘Waqf’ (charities) and execution of contracts and loans and shall be represented by Civil Attorney General in courts cases by or against it”.

The Jordanian Environmental Agency is an official public corporation empowered with authorities to protect the environment, and implement its environmental policy in coordination with other competent Jordanian authorities. This was the first time that Jordan establish an independent body to deal with all environmental affairs, and it reflects the Jordanian entrance to the environmental era that spread all over the world.

In the UK the Environmental Agency was established in the early 1990s after some reluctance shown by the House of Common Selected Committee on the Environment, the Environmental Agency is an independent corporate, therefore, it does not have Crown immunity. It is responsible for wide varieties of environmental affairs albeit not all environmental matters. It has responsibilities including for example, water management, fisheries, waster management and other responsibilities mentioned in the Environment Protection Act 1990 and the Environmental Act 1995. Recently, substantial developments have taken place in Jordan which may have significant effects on Jordanian environmental law; Jordan has formally established a Ministry of the Environment to be responsible for all environmental affairs²⁵.

²³ *Twyford Parish Council v Secretary of State for the Environment* [1993] 3 Env LR 37,

²⁴ *Wychavon District Council v Secretary of State for the Environment* [1994] Env LR 239, also *Kincardine and Deeside District Council v Forestry Commissioners* [1993] Env LR 151

²⁵ This establishment took place in the Royal Decree to form a new Jordanian government in October 2003.

It's worth mentioning that, before the establishment of the Ministry of the Environment and the GCPE, environmental affairs were randomly distributed among many governmental and non-governmental bodies, such as Ministries of Agriculture, Water & Irrigation, Ministry of Municipalities & Rural Affairs and Ministry of Tourism. Therefore, it's clear that there is still much that Jordan has to do to re-organise its institutional environmental framework; in order to unify the competency regarding environmental affairs.

Moreover, a proposal to establish an environmental court in Jordan has been made in 2001²⁶. Later in 2002, a feasibility study has been conducted by the General Corporation for Environmental Protection indicated that such court is to be established in the Kingdom and to be entitled with jurisdiction in all cases that have an environmental component including actions to claim compensation for environmental damage²⁷. Although the novelty of such court is beyond doubt, but the need for special environmental court in Jordan is to be judged on the basis of facts and realities. As we shall see later, the magnitude of environmental litigations in Jordan is rather limited. Only a few cases with environmental implications have been ruled by the Jordanian Courts. And the most important potential case in this regard- namely the case of the Jordanian Cement Factories- has been withdrawn out of courts and handled administratively²⁸.

Regarding the environmental court position in the UK, some commentators noticed the increasing specialisation in environmental law and the difficulty of the Courts -in their present form- moving beyond their traditional role of detached review particularly when they have to deal with highly technological or scientific data presented in environmental damage cases²⁹.

Lord Woolf pointed out the need for special environmental court or tribunal, arguing that a specialist environmental court would lead to faster, cheaper and more effective

²⁶ E, Al Khaledi, "Toward the establishment of Environmental Court", Alrai Newspaper, 2002, issue No 11429

²⁷ The Jordanian National Agenda 21, Towards Sustainable Development, p 182, Article 98 of the Jordanian Constitution allows special courts to be established in the Kingdom by Royal Decree and Act of Parliament. The Act establishing special court must specify its formation, and its competence.

²⁸ District Court of First Instance/ Fuheis and Mahes, 12/2002, not reported.

²⁹ Lord. Woolf, "Are the Judiciary Environmentally Myopic?", (1992), 4(1), *Journal of Environmental Law*, p 1, See Also R. Cranworth "Environment Enforcement: The need for a specialised court", (1992), 7, *Journal of Planning and Environment*, p 798

resolution of disputes in the environmental area, and that such a court would enable judges to examine environmental problems with unlimited vision³⁰.

Although a feasibility study on the Environmental Court Project conducted by Malcolm Grant in 2000 has supported the idea Lord Woolf³¹, the UK Government has rejected the idea of the creation of new Environmental Court³².

4. Institutional framework for environmental protection in Jordan

Jordan recognises that in order to ensure sustainable development of its economy, it must continue to develop its environmental regulatory structure and to strengthen its means for ensuring compliance with and enforcement of its environmental laws and regulations.

In an advanced step toward the protection of the environment and in compliance with the Rio principles³³, Jordan passed the Law for Protection of the Environment No (12) of 1995 by virtue of which the General Corporation of the Protection of the Environment was established as an independent institution, article 3 states that: "A general official foundation is to be established in the kingdom under the name of 'General Corporation for protection of the Environment' with it is own legal entity, independent financially and administratively". Although it has an independent entity, the Environmental Act requires the Corporation to reports to the Council of Environmental Protection chaired by the Minister of the Environment who is in charged of following up environmental affair³⁴. However, the Corporation in not

³⁰ His Lordship formulates his suggestion by saying "...what I am contemplating is not just a court under another name. It is a multi-faceted, multi-skilled body which would combine the services provided by existing courts, tribunals and inspectors in the environmental field. It would be a 'one stop shop' which should lead to faster, cheaper and the more effective resolution of disputes in the environmental area. It could be a forum in which judges could play a different role. A role which enabled them not to examine environmental problems with limited vision.". Lord G.Woolf, "Are the Judiciary Environmentally Myopic?", (1992),4 (1), *Journal of Environmental Law*, p 1

³¹ M.Grant."Environmental Court Project: final report". Available online at: http://www.odpm.gov.uk/stellent/groups/odpm_planning/documents/page/odpm_plan_606036-03.hcsp

³² Environmental Courts do now exist in Hong Kong, and in New Zealand it was established in 1980, and is composed of four Judges and nine technical and conciliation assessors. Its jurisdiction combines appeal, judicial review and enforcement functions. Other countries like Ireland and Bangladesh have announced their intention to set up specail environmental courts

³³ Principle 11 of the Rio Declaration provides that "States shall develop its environmental legislations regarding liability".

³⁴ Article 32/1 provides that "At the end of each financial year, the General Manager shall submit a report to the Council covering the progress of the Corporation and its future plants. The report will be submitted not later than the end of January of the following year."

under a legislative obligation to receive directions from the Minister, it has only to work with the relevant authorities in corporative and coordinative manner³⁵.

The General Corporation for protection of the Environment is entrusted with the following responsibilities:

1. preparing a national strategy to protect the environment, including specific plans and programmes for implementation;
2. Determining the procedure for evaluating and approving laboratories to monitor environmental quality;
3. Preparing environmental specifications and standards;
4. Conducting studies and research in environmental affairs;
5. Monitoring public and private enterprises for compliance with approved environmental specifications and standards;
6. Requiring environmental specifications and conditions as prerequisites for licensing or renewing the licenses of agricultural, commercial, industrial, housing and other projects;
7. Regulating transportation and disposal of environmentally harmful substances, and determining which substances should be prohibited from entering into the Kingdom;
8. Inspecting industrial facilities;
9. Monitoring air, water, and soil pollution.

The law contains basic principles for the legal framework of environmental protection and management, but according to international practice, the act does not contain all specific standards or regulations for the allowed level of pollution and implementation. By doing this, the legislator opted to keep standards and regulations under the jurisdiction of the Cabinet³⁶; so they can be modified in accordance with current values, needs and the emergence of new pollution abatement technologies.

³⁵ Article 5 of the Act states that "In order to realise the specified objectives of this law, the Corporation shall, in co-ordination and with the co-operation of the relevant authorities, perform the following tasks and have the following powers: ..."

³⁶ Article 38 of the Jordanian Constitution provides the Cabinet with the authority to legislate regulations and by-laws in accordance with the parliamentary laws.

And now Jordan is in the process of drafting many environmental regulations and by-laws needed to implement the provisions of the Environmental Act.

Moreover, according to this act, the Jordan Institution for Standards & Metrology issued a list of Jordanian Standards related to Environment to determine the acceptable level of pollution and other emissions, these standards represent the minimum level that should not be exceeded, these standards are concerned with certain categories of pollution such as water, soil and air pollution.

It is to be regretted that the Environmental Protection Act did not have any applicable provision that may be used in the case of demanding compensation for damage resulted from pollution. As a result, civil liability for environmental damage is based totally on the general rules incorporated in the Jordanian Civil Code which is based on the Islamic Jurisprudence. Therefore, it may be useful to have a brief looking at the Islamic perspectives related to environmental protection.

5. Islamic law and environmental protection:

Islamic law principles have potential application in civil litigations by virtue of Article 2 of the Jordanian Civil Code which provides that: "If the Court shall find no applicable provision in this Code, it shall decide the case by the rules of Islamic Jurisprudence which are more adaptable to the provisions of the Code". Moreover, Article 3 stipulates that: "The rules of Islamic Jurisprudence shall be referred to for the understanding and interpretation of this Code provisions". These Articles are of particular significance, giving the fact that as a general rule, Islamic law provides for a strict liability regime in civil litigations. Moreover, it includes many related rules and ethical principle upon which the courts have been directed to take them into account when interpreting the provisions of the Civil Code³⁷.

5.1. Principles of Islamic Law related to environmental protection

The principle in Islam, which governs many aspects of the daily life, is that the interests of the Islamic nation and the society at large take priority over the interests of individuals and various groups when they cannot be reconciled. Among the

³⁷K. Mohammed. "Environmental pollution, Islamic Perspective and Jordanian application", Amman, 1994, p 21

Juristic principles of Islamic law are: "Priority is given to preserving the public interest over private interests," and "The general welfare takes priority over individual welfare"³⁸.

Another dominant principle exists within the Islamic jurisdiction provides that: "A private injury is accepted to avert a general injury to the public. Article 65 of the Jordanian Civil Code similarly, sacrificing private interest for the purpose of achieving and protecting the common interest of the public, it provides that "The lesser of two evils shall be chosen". And moreover "Severe damage shall be removed by means of lighter damage," and "If one of two opposing detriments is unavoidable, the more injurious is averted by the commission of the less injurious"³⁹.

The above mentioned principles are important because environmental protection under Islamic jurisdiction is widely considered as a public interest; therefore, it has a priority over private ones, and should prevail when contradicting with the individuals' interests⁴⁰. These principles are important concepts in the Islamic approach that can be beneficial in handling environmental degradation, and they prove that Islam provides a set of principles which theoretically should guide its followers to lead a more environment-friendly existence.

As for the Islamic environmental record, it generally can be formulated by saying that: The right to benefit from the essential environmental elements and resources, such as -water, air, soil, energy, forests, fish and other resources- is a right held in common by all members of society. All properties and resources are held in trust by human beings, to be used only in accordance with their divinely ordained purposes. Therefore, while the right to hold private property is rigorously safeguarded under Islamic law, there are important restrictions on its use (article 66 of Jordan Civil Code represent this principle). As will be seen later, under the Common Law rules applied in the UK, property right has a significant importance in many tort law doctrines, nuisance for

³⁸K. AbdelAziz. "Principles of Islamic law", ed 12, 1998. p 26

³⁹ K. Mohammed. "Environmental pollution, Islamic Perspective and Jordanian application", Amman, 1994, p 14

⁴⁰K. AbdelAziz. "Principles of Islamic law", ed 2, 1998. p 41

example is a tort designed to protect the landowners or any one provided that he has a proprietary right or a legitimate interest in the land⁴¹.

The Islamic theory regarding environmental protection based on the principle of *Sustainable Utilisation* and the idea of stewardship or (Khilafah) which means that, the earth does not belong to human beings, rather human beings is only an element in the whole universe. Man has been granted this stewardship to manage and utilise the earth's resources in accordance with his own benefit and the benefit of other created beings, and for the fulfilment of his own interests and of theirs⁴². These Islamic concepts are formally recognised in the modern international and national environmental law under analogous concepts such as sustainable development, planetary trust, and intergenerational equity.

Environmental values and principles in Islam are codified in the Shari'a (Islamic law) while others are inherent in a rich reservoir of concepts to be found in the Qur'an when understood in an environmental sense⁴³, the Shari'a and Qur'anic concepts provide a very effective ethical and pragmatic answer to human environmental crisis provided that it find its way to application⁴⁴.

5.2 The role of Islamic authorities regarding environmental protection:

The primary duty of the ruler and his assistants, whether they are administrative, municipal, or judicial authorities, is to secure the common welfare and to avert and eliminate injuries to the society as a whole. This includes protection and conservation of the environment and natural resources. Historically, many of the responsibilities of environmental protection and conservation have come under the jurisdiction of the office of the hisbah; - a governmental agency which was in charge generally with the establishment of good and eradication of evils. The muhtasib (similar to environmental agencies nowadays), who headed this office, was required to be a jurist thoroughly familiar with the rulings of Islamic law which pertained to his position. He was responsible for the inspection of markets, roads, buildings, watercourses, reserves

⁴¹ *Hunter v Canary Wharf Ltd* [1997] 2 All ER 426, *Khorasadjian v Bush* (1993) 3 WLR 476; (1993) 3 All ER 669

⁴² K. AbdelAziz. "Environmental Protection in Islam" Al-Rali Newspaper. Amman.2000.No 6671.

⁴³ S. Haneef."Principles of Environmental Law in Islam", (2002), *Arab Law Quarterly*, pp 241-254.

⁴⁴ S. Ziauddin, " Towards an Islamic theory of environment". Part 2.chapter 10 of *Islamic futures: a shape of ideas to come* .Mansell Publishing. See also Haneef. S "Principles of Environmental Law in Islam".(2002), *Arab Law Quarterly*, pp 241-254.

and so forth. Among his duties were supervision and enforcement of regulations and standards pertaining to safety, hygiene, and cleanliness; the removal and disposal of wastes and pollutants; the prevention and elimination of hazards and nuisances; the protection of pastures from violation and trespass; and the prevention of abused animals. He was responsible for assessing damages and imposing fines and other penalties. In addition, he had wide discretionary authority to take necessary measures to ensure the public welfare⁴⁵.

The widest scope of the term public welfare encompasses many elements such as poverty alleviation, health well-being, promotion of education, housing, agriculture, energy, environment, labour and employment; these lofty goals can only be attained by applying a comprehensive policy which would integrate humanitarian factors into development planning. This integrated approach should ultimately aim at the improvement of the life conditions- by moving towards establishing justice to the balance of the living standards- as well as creating a healthy environment for the public, preventing health hazards caused by chemical substances and preserving natural resources.

The governing authorities in Islamic ruling have, for instance, the right to hold individuals, organisations, establishments, and companies responsible for the elimination and repair of damage resulting from their activities, enterprises, and projects which, -although necessary for the welfare of the whole community-, may result in damage to the environment and the natural resources. They also have the right to claim damages or indemnity from individuals, organizations, establishments, and companies for irreversible damage to the natural environment resulting from their activities. The legal rules in this regard are, "Damage shall be eliminated", and "Damage shall be removed to the extent that is possible"⁴⁶.

As seen above, the protection and conservation of the environment and natural resources involves two major aspects: Remedy of damage; and Prevention of damage. These two aspects represent the preventative and the remediative aspects of Islamic approach toward environmental liability. There were many other supportive principles within the same approaches, such relevant principles of Islamic law including

⁴⁵ K. Mohammed, "Environmental pollution, Islamic Perspective and Jordanian application", Amman, 1994, p 22.

⁴⁶ These rules are codified in the Jordanian Civil Code. Article

“Damage shall be eliminated” and “Damage shall not be eliminated by means of similar damage”.

Islam’s view of the environment and the responsibility towards its protection is clear. Islamic perspective in the relation between mankind and nature recognises a harmony between human- being, as God’s vice-regent on the Earth and the nature⁴⁷. Therefore, the relations between mankind and the nature are conceived as tripartite relations⁴⁸.

Numerous Islamic teachings prescribe respecting nature’s order, balance, and aesthetic values. Islam does consider the Earth to be subservient to humankind, but it prohibits its wasteful or otherwise irresponsible administration and exploitation. While the Qur’anic value system contains necessary elements for the development of environmental ethics, Islamic spiritual and cultural traditions, in both their cosmopolitan and local forms also provide rich sources for such purpose. Islamic civilization over the history has a bright record of respect for protection and preservation of the nature’s balance and the environment. Attempts at the codification of Islamic environmental ethics need also to review such a record⁴⁹.

6. Jordan is signatory of several international environmental treaties:

Jordan believes that, the threat to the environment is unique in recognising no borders; this character of environmental problems requires global and regional efforts to ensure the effectiveness and feasibility of environmental protection measures. Therefore Jordan has an active participation in many international treaties and conferences concerning environmental issues. His Majesty the late King Hussein in the Earth Summit held in Rio de Janeiro 1992 emphasises Jordan’s commitment to environmental protection.

Jordan was the first country in the Middle East to adopt a national environmental strategy, which was officially launched in May 1992 after incorporating the concerns and recommendations of many governmental and private bodies, NGOs, international organisations and bilateral donors. His Majesty the king of Jordan mentioned that

⁴⁷ S. Haneef. “Principles of Environmental Law in Islam”. (2002), *Arab Law Quarterly*, pp 241-254.

⁴⁸ K. AbdelAziz. “Environmental Protection in Islam” *Al-Rali Newspaper*. Amman.2000.No 6671.

⁴⁹ S.Haneef. “Principles of Environmental Law in Islam”. (2002), *Arab Law Quarterly*, pp 241-254.

“Our earth is vulnerable today because of our collective negligence during the last half century. We show greater urgency here today because we have been unable to muster the political will required to deal with chronic global problems such as rapid industrialisation, urbanisation, toxic pollution and over-exploitation of finite natural resources. The issues we address today are sustainable development and environmental protection on a global scale. The parallel political and personal challenge that we face is that of our responsibility as leaders—our obligation to act forcefully for the sake of future generations, regardless of the immediate financial costs or the political pressures that we may encounter”⁵⁰.

Jordan’s commitment toward environmental protection can be represented in the numerous international environmental treaties that Jordan has signed during the last few decades. Below are the international environmental treaties in which Jordan has participation, so far these are the treaties which have already entered into force until 1995, even some of them Jordan is still considering signing them before being a contracting party:

6.1. Multilateral Environmental Agreements to which Jordan is a Party (Dates of entry into force noted in parentheses):

- 1- Constitution of the Food and Agriculture Organisation of the United Nations (1/23/1951)
- 2- International Convention for the Prevention of Pollution of the Sea by Oil, 1954, as amended in 1962 and 1969 (8/8/1963)
- 3- International Plant Protection Convention (4/24/1970)
- 4-Convention of the International Maritime Organisation (11/9/1973)
- 5-Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matters (8/30/1975)
- 6-Convention Concerning the Protection of the World Cultural and Natural Heritage (12/17/1975)
- 7-Convention on Wetlands of International Importance Especially as Waterfowl Habitat (5/10/1977)

⁵⁰ The speech of the late king Hussein I of Jordan Addressed to the United Nations Conference on Environment and Development Rio de Janeiro June 2, 1992.

8-Amendments to Annexes to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matters concerning Incineration at Sea (3/11/1979)

9-Convention of International Trade in Endangered Species of Wild Fauna and Flora (CITES) (3/14/1979)

10-Amendments to the Annexes to the Convention of the Prevention of Marine Pollution by Dumping of Wastes and Other Matters (3/11/1981)

11-International Convention for the Safety of Life at Sea (SOLAS) (11/7/1985)

12-Protocol to amend the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (10/1/1986)

13-Amendment to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (4/13/1987)

14- Convention of the Protection of the Ozone layer (8/31/1989)

15- Protocol on Substances that Deplete the Ozone Layer (8/30/1989)

16- Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (5/5/1992).

17- Convention on Biological Diversity (2/10/1994)

18-Amendment to the Montreal Protocol on Substances that deplete the Ozone Layer (2/10/1994)

19-Framework Convention on Climate Change (3/21/1994)

20-Amendment to the Montreal Protocol on Substances that deplete the Ozone Layer (9/28/1995)

21-United Nations Convention on the Law of Sea (11/27/1995)

22-Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 (7/28/1996)

23-International Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa (12/26/1996)

24- The Cartagena Protocol on Biosafety (11/10/2002)

Nowadays, the General Corporation for Environmental Protection (GCEP) is currently preparing an official memorandum that urges the government of Jordan to ratify The Kyoto Protocol to curbing global greenhouse gases emissions⁵¹.

⁵¹ Article 33 of The Jordanian constitution states (1-) The King declares war, concludes peace and ratifies treaties and agreements. (2-) Treaties and agreements, which involve financial commitments to the Treasury or affect the public or private rights of Jordanians, shall not be valid unless approved by

Concerning the regional environmental affairs, Jordan doubts the effectiveness of national policies for the protection of the environment in the absence of regional coordination. As for the Middle East, countries of the region are so closely intertwined geographically and demographically that it is impossible for any party to live in isolation of its surroundings. Therefore, Jordan believes in the inevitably regional corporation in order to handle some pressing environmental problems in the Middle East, such as water shortage and other demographic dilemmas⁵². This idea is the reason for why Jordan is a member of many regional environmental treaties such as:

- 1- Regional Convention for the Conservation of the Red Sea and Gulf of Aden.
- 2- The Protocol Concerning Regional Co-operation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency 1976.
- 3- Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping From Ships and Aircraft (Barcelona), 1976
- 4- Convention for the Protection of the Mediterranean Sea against Pollution (Barcelona), 1976

Jordan has a wide participation in all international events that devoted to address environmental protection and putting an end to environmental deterioration. For Jordan, environmental protection should be neither a luxury nor a trend destined to go out of style in time; the country's scarce resources and fragile ecosystems necessitate a viable and ongoing program of action covering all aspects of environmental protection.

Jordan became the first country in the Middle East to adopt a national environmental strategy. With help from the International Union for the Conservation of Nature (IUCN), in May 1992 a team of over 180 Jordanian specialists completed a practical and comprehensive working document entitled National Environmental Strategy for Jordan. The document offers over 400 specific recommendations concerning a wide variety of environmental and developmental issues. Moreover, the plan outlines six

the National Assembly. In no circumstances shall any secret terms contained in any treaty or agreement be contrary to their overt terms.

⁵² According to international and national figures, there are around 2 millions of Palestinian refugees in Jordan; so far no foreseeable solution to this humanitarian and environmental issues but a just and permanent peace settlement to end the Arab-Israeli conflict.

strategic initiatives for facilitating and institutionalising long-term progress in the environmental sphere⁵³:

1-Achieving sustainable development, which fulfils the needs of the present generations without compromising the needs of the future generations to fulfil their needs;

2- Construction of a comprehensive legal framework for environmental management;

3- Strengthening of existing environmental institutions and agencies, particularly the Department of Environment in the Ministry of Municipalities and Rural Affairs⁵⁴;

4- Giving an expanded priority for Jordan's protected areas;

5- Promotion of public awareness and participation in environmental protection programmes;

6- Giving priority to water conservation and slowing down Jordan's rapid population growth.

Jordan also released its Agenda 21, which is the National Sustainable Development Strategy prepared in compliance with the conventions Jordan signed after the Earth Summit in Rio de Janeiro in 1992, and in 2002 Jordan represented by a high-level delegation participated in Johannesburg World Summit on Sustainable Development (WSSD)⁵⁵.

The National Strategy presents specific recommendations for Jordan on a sectoral basis, addressing the areas of agriculture, air pollution, coastal and marine environment, antiquities and cultural resources, mineral resources, wildlife preservation, population growth, tourism, and water resources. The plan places considerable emphasis on the conservation of water and agriculturally productive land, of which the contamination would bring significant adverse consequences to Jordan environment and economy.

Currently, Jordan is in the process of drafting and approving environmental bylaws pursuant to its environmental protection law. As for June 2004, Jordan had promulgated five of 16 proposed major environment bylaws. These bylaws address

⁵³ Jordanian National Charter, 1990

⁵⁴ In 2003 this Department become the Ministry of the Environment

⁵⁵ - The Jordanian National Agenda 21, Towards Sustainable Development. P 5

noise pollution, management and transport of hazardous waste, marine resources, coastline protection and eco-tourism.

The Government of Jordan shows a sincere interest in protecting the environment as well as the safety and health of its citizens. Some of the measures have been adopted in order to achieve this end such as the prohibition against dumping of foreign hazardous wastes within its borders as well as the attempts made to manage hazardous wastes in an environmentally sound manner especially in the city of Zarqa⁵⁶.

Recently the World Economic Forum held in USA February 2002 issued its annual report about environmental sustainability. In this report Jordan has been ranked 53 universally and to be the first Arab Country as regard to its environmental protection record⁵⁷.

6.2.Integrating international environmental treaties within domestic law

The Jordanian Constitution does not contain specific provisions as to the relationship between international conventions and domestic laws. Accordingly, there is a need to incorporate the convention in the legal system of Jordan to ensure its correct and prompt application. In this regard there are two crucial points that need to be clarified, the constitutional authority which have the power to ratify international treaties and the legal status of international treaties in the Jordanian jurisdiction

6.2.1. The constitutional authority which have the power to ratify international treaties in Jordan:

In the Jordanian Kingdom, the making of an international treaty is an executive act. Article 33 of the 1952 constitution of Jordan does specify the mechanism by which international treaties can be ratified; basically it's the king who has the authority to ratify all international treaties.

Article 33/1 of the Jordanian constitution provides that "The King declares war, concludes peace and ratifies treaties and agreements". The only exception for this rule is that major treaties which fall within the scope of article 33/2 which reads as follows "Treaties and agreements which involve financial commitments to the Treasury or

⁵⁶ A published working paper, Jordanian General Corporation for Environmental Protection, 2000, p 35

⁵⁷ An Initiative of the Global Leaders for Tomorrow Environment Task Force, World Economic Forum, and Environmental Sustainability Index 2002 ranking .revised2/14/2002,Jordan came in 96 ranking in the year 2001.

affect the public or private rights of Jordanians shall not be valid unless approved by the National Assembly”. According to the constitutional practice in Jordan, environmental international treaties which approved by the government of Jordan, do not fall within the requirement of parliamentary ratification.

None of the environmental treaties -which Jordan has signed and ratified- has been discussed or ratified by the parliament⁵⁸. Some would argue that all treaties in one way or another can affect citizens rights or place a burden on the public treasury, so that they should be ratified by the legislative authority, but this argument has been regrettably rejected by the high court in Jordan “Court of Cassation” which ruled that “...Although the Treaty in question affects the suitor financial status, but it allows the Jordanian Authorities to impose the same Tariff on Syrian citizens”, the court went on to say “We think that ratification of international treaties has an executive nature. Therefore, the Executive Authority has the right to exercise this task according to the provisions of the applicable Constitution”⁵⁹.

6.2.2. Legal status of international treaties in the Jordanian jurisdiction:

Although the constitution of Jordan does not provide guidance in the event of a conflict between international treaties and national laws, it's a customary principle of the Jordanian jurisdiction that international treaties to which Jordan is a party are considered to take precedence over domestic statutes. This follows from the international obligation to apply treaties in good faith which requires states to respect its international commitments in the application of national law⁶⁰.

Accordingly, the ratification of a treaty by the King or the Parliament and its subsequent publication in the official gazette made the treaty binding and enforceable within the Jordanian legal jurisdiction, and more importantly prevail over conflicting Jordanian domestic statutes.

⁵⁸ The 1994 Treaty to Establish Peace between the State of Jordan and the State of Israel has been ratified by the Jordanian Parliament. Although this treaty includes environmental provisions; but it is primarily a political treaty and has been discussed by the parliament to satisfy opposite political parties and public opinion, who were concerned about this movement toward normalisation.

⁵⁹ *Jordan Court of Cassation 460/ 1998 Law report, 1998, p 710*, the case was about bilateral treaty with Syria regarding Custom Tariff Exemptions.

⁶⁰ There is a presumption of the Jordanian legal system suggests that the Parliament does not intend to act contrary to Jordan's international obligations.

This view which gives international treaties priority over Jordanian legislations has been upheld by the Jordanian Court of Cassation, which in many cases reaffirmed the principle that international conventions supersede the domestic statutes of Jordan. The court ruled that “International conventions which Jordan has ratified have the force of law and take precedence over all national legislations, with the exception of the Constitution. The only exception for this rule is international treaties which include provisions pose a threat to public order”⁶¹. This ruling has been reaffirmed by a new ruling of the Court of Cassation when the court “admits the unrestricted validity of the principle that international treaties takes precedence over national law”⁶². Even in the case of interpretation, Jordanian courts attempts to interpret the domestic legislation so as to make it better correspond to Jordan’s international commitments. To allow otherwise would undermine the fact that Jordan is an active member of the international community who takes its international commitments seriously; having in mind that, violation of such a commitment will result in a state responsibility under the public international law.

Environmental treaties are no exception to this principle; therefore, international treaties concerning environmental issues to which Jordan is a party are in a superior position when there is a conflict between its provisions and any Jordanian legislation other than the Constitution. Another legislative indication that supports the principle of international treaties primacy in Jordan is to be found in article (29) of the Jordanian Civil Code of 1974 which stipulates “that previous articles (namely articles 1 to 28) shall be applied unless it contradicts an international treaty’s provision ratified by the Government of Jordan”⁶³.

It is worth mentioning that, although international treaties have supremacy over national legislations in the sense that a collision between them should be resolved in favour the treaty; but international treaties by themselves do not create actionable and direct rights to individuals. Therefore, a person can not relay on international treaty to sue the government for any alleged breach of any rights or privileges included in the Treaty, but he only can support his claim by presenting this to the court as a part of his evidence. *Jordan Court of Cassation in the case 460/ 1998* ruled that “although the court recognises the importance and supremacy that international treaties have, but

⁶¹ Jordan court of Cassation, case No 32/82 A 1982 Law Report 1982

⁶² Jordan court of Cassation, case No 394/A 2001, Law Report, 2002

⁶³ Article 1- 28 of the Jordanian Civil Code are provisions of Private International Law

it is of the opinion that, these treaties are meant to oblige the State of Jordan in its international relations, and not to create actionable rights, for its breach; citizens can not sue the government -in this case- and for this reason, we find the decision to strike out plaintiff claim is valid and well-founded”⁶⁴.

Another point regarding the status of international law in the Jordanian legal system is concerned with customary international law derives from state practice repeated over time and generally applies to all states not only to the parties to a particular treaty. The status of customary international law in relation to Jordanian law remains unclear. And there is no rule provided by Jordanian constitution or the Jordanian Court of Cassation concerning the legal status of customary international law and whether or not the latter is automatically considered as a part of domestic law and consequently prevails over conflicting domestic legislation.

7. The Jordanian legal framework concerning environmental protection and liability:

As we have seen, environmental awareness which spread all the over the world since 1970s reached Jordan earlier than its counterparts in the region of Middle East. Even though environmental legislation in Jordan is still in its infancy stage in comparison with developed and industrialised countries which have a more comprehensive and solid environmental regulatory and liability regimes such as UK, USA and Germany. The relatively infant approach that has been adopted in Jordan to handle environmental degradation finds its justifications in the fact that Jordan is a developing country who needs to develop further its industrial sector and face the economic challenges, bearing in mind that strengthening environmental regime to enable the injured party to claim sufficient compensation for damage caused could deter potentially environmentally harmful investments. This fact put the environmental protection far from being on the first place in Jordanian political agenda. The decision-makers in Jordan have many priorities in the national and international level; these priorities affect the way in which Jordan deals with environmental initiatives.

⁶⁴ *Jordan Court of Cassation 460/ 1998 Law Report, 1998, p 710*

The Jordanian legal framework regarding environmental protection and liability can be discussed from three dimensions, constitutional, criminal and civil. Below is an overview for the Jordanian environmental package.

7.1. The constitutional dimension

The Constitution of Jordan 1952 -when it mentioned and organised rights and freedoms offered to the Jordanian citizens- neither refers to environmental rights, nor it coins this right in a negative way by stating that the government has the responsibility to protect the environment⁶⁵.

However this duty may be derived from the general duty on the government to ensure a satisfactory life to all citizens, Article 6/2 states that “The Government shall ensure work and education within the limits of its possibilities, and it shall ensure a state of tranquillity and equal opportunities to all Jordanians”. But I think this Constitutional Article can not support a Jordanian citizen who wish to sue a governmental agency upon its failure to protect the environment, or to restore the damaged environment as well as demanding compensation when he suffer an injury as a result of environmental damage.

The wording used in this Article was carefully formulated and has a bombastic nature; it can be interpreted in a wide or restricted manner so as to mean anything and nothing in the same time. Moreover, tranquillity does not seem to have environmental implications, except it can be suggested -at best- that such state of tranquillity means an environment free from noise pollution. However, this interpretation is be made by courts not only by scholars.

Therefore, the Jordanian Constitution shall be amended to include the right of every person to live in a healthy environment, and the right of citizens to have an active role in promoting environmental policies in general; by ensuring an active public participation in all environmental decision-making process, and to challenge decisions concerning their environment as well as access to justice regarding environmental liability.

Active public participation is one of the important principles that received the due attention in Rio Declaration 1992 (principle 10) which means that, the public at large

⁶⁵As seen before, many countries have constitutions which refer to citizens' right to healthy and clean environment, or at least the governments' duty to protect the environment.

or via interested groups shall be enabled to challenge the decisions of legal regulators and the activities of developers who fail to comply with the requirements of environmental protection, including the requirement to facilitate public participation.

Moreover, the Draft Declaration of Principles on Human Rights and The Environment provides that "All persons have the right to active, free, and meaningful participation in planning and decision-making activities and processes that may have an impact on the environment and development. This includes the right to a prior assessment of the environmental, developmental and human rights consequences of proposed actions"⁶⁶.

Although the Jordanian constitution does not contain a clear and specific environmental right, that is to say, an actionable right which enable any injured person to claim compensation if he suffers an injury to his health or property as a result of environmental damage, the Jordanian National Charter which represents a constitutional framework for the country⁶⁷, has made a strong reference to the environment and its protection.

However, the National Charter does not have a binding nature, and the court will only rely upon the Charter provisions as a guidelines rather than being obliged to decide the case according to its principles⁶⁸. This view of the non-binding nature of the National Charter has been affirmed by the ruling of the high court of Jordan; the court of cassation rejected the interpretation that gives the National Charter any legal application other than being guiding principles which shall direct the decision-makers when they prepare their policies and not to have any binding effect. It ruled that "... the view of interpreting the principles included in the National Charter so as to give these principle a binding effect was not intended by the founder of the Charter. Indeed, these principles have a legal value as guiding principles, but a contradiction with them does not render the decision or the action null or unlawful"⁶⁹.

⁶⁶ See Article 18 of the 1994 Draft Declaration of Principles on Human Rights and The Environment.

⁶⁷ In 1991, a selected royal committee of specialists prepared a draft of general principles and policies in all aspects of national affairs including the environment and its protection, this draft was discussed and adopted in a national conference under the patronage of his majesty the late king Hussein I.

⁶⁸ K. Krayeem. "Environmental Legislations in Jordan" Yarmouk University, 1998.P 128, See also M. Asma "Human Rightss under the Jordanian Jurisdiction", a working paper presented to the 1st conference on "Human Right in Jordan". 1994.

⁶⁹ *Jordan Court of Cassation, Case no 978/A 2001. Law Report, December 2001*, the case was made by a Jordanian engineer who argued that the Ministry of Industry and Trade prohibited him from an employment opportunity by hiring a foreign engineer; he argued that this decision breached article chapter/ Article 3 of the National Charter.

A case of the same nature has been decided by the English courts regarding the binding effects of the principles contained in Article 174/2 of the EC Treaty in the English jurisdiction particularly precautionary principle⁷⁰. The Court took the view that such principles included in Article 174/2 are not binding on the UK; because they simply lay down factors to be used when deciding on community policy”⁷¹.

Chapter 4 article 3 of the Jordanian National Charter states: “Optimal use must be made of all available resources, coupled with the utilisation of appropriate scientific and technological means for improving productivity in a manner that would meet the needs of the citizens, provide employment opportunities, improve and diversify income and raise the standard of living”. Article 10 from the same chapter states: that: “Water must be regarded as a basic factor on which the future of development in Jordan very heavily depends. This requires a clear exercise by the state over ownership, sovereignty, preservation, development, management, storage, transportation and use of water resources within a set of clear national policies and priorities.”

7.2. Environmental principles under the Jordanian jurisdiction:

Jordan’s approach toward environmental protection is based on a major collection of principles, these principles are, sustainable development, maintaining high levels of environmental protection and improving such levels, not lowering environmental standards to promote industries and trade, and effective enforcement of environmental laws and regulations.

As for the polluter pays and precautionary principles; which are the main principles related to environmental liability, they hardly can be traced in the Jordanian legal system. Neither the constitution nor other legislations have made reference to these principles, and the only environmental principle that has been referred to in the Environmental Protection Act is the environmental impact assessment⁷², therefore,

⁷⁰ Article 174/2 of the EC Treaty reads as follows: “Community policy on the environment shall be based on the precautionary principle and on the principle that preventive action should be taken, that environmental damage should as a priority be rectified at source and the polluter should pay”.

⁷¹ *R v. Secretary of State, ex p Duddridge* [1995] Env L R 151 at 164

⁷² According to Article 15 of the Jordanian Act for the Protection of the Environment, Jordan recently adopts a compulsory environmental impact assessment from all industries and installations; such a requirement is clearly imposed according to the precautionary principle

it's not clear whether Jordan openly adopts these principles or not in the strict legal terms.

Although Jordan has not incorporated the precautionary principle into its domestic legislations, there are some international treaties which referred to the precautionary principle and Jordan has ratified almost all of these environmental treaties⁷³; thus I believe precautionary principle shall constitutes a part of Jordanian environmental package. Moreover, Jordan environmental act and other concerned legislations impose fines and punishments on the polluters who commit certain environmental offences, and in the theoretical terms, polluters may face civil liability actions to compensate the victims of environmental damage resulted from their activities.

It is to be mentioned that, Jordan acceded to the World Trade Organisation (WTO) in April 2000. In addition, recently the United States and Jordan have signed a Free Trade Agreement (FTA)⁷⁴. In fact these two significant events have a requirement, that Jordan should develop further its environmental laws and regulations to be able to join them, beside other requirements such as improving the laws related to foreign investment and removing trade barriers as well as the protection of intellectual property rights⁷⁵. The last few years of political stability and economic reforms proved that despite the severe constraints of political, economic and demographic pressures on its existence and natural resources Jordan implement one of the most effective environmental protection policies in the region of Middle East, which maximize the possibilities for successful sustainable development strategy⁷⁶.

⁷³ The Convention on Biological Diversity 1992, The June 1990 Amendments to the Montreal Protocol on Substances that Deplete the Ozone Layer, and the 1992 U.N. Framework Convention on Climate Change

⁷⁴ The language in Article 5 of the Agreement was written in a general and flexible way to ensure smooth and effective implementation by both parties and maximising opportunities presented by the agreement for the Jordanian economy as well. The four key principles that energise this agreement are as follows: ensuring sustainable development, maintaining high level of environmental protection, not lowering environmental standards to promote trade; and effective enforcement of environmental laws and regulations.

⁷⁵ According to Jordan-US FTA, each country agrees to enforce its environmental laws effectively as they relate to trade. Each side has agreed to settle disagreements on trade-related environmental law enforcement through a dispute settlement process. The United States and Jordan have both conducted environmental reviews of the FTA and have also expanded environmental cooperation outside the scope of the FTA through a new U.S.-Jordanian Joint Forum on Technical Environmental Cooperation.

⁷⁶ K. Krayeem. "Environmental Legislations in Jordan" Yarmouk University, 1998.P 140

7.3. Criminal protection to the Environment:

Criminal law is also used in the implementation of the polluter pays principle. There are various Jordanian legislations that have criminal provisions to protect the environment, the most effective and important one in this regard is the Jordanian Criminal Code No 16/1960 and its amendments. The code includes many offences that aim at protecting the environment, these provisions criminalise some activities which have adverse environmental effects and impose criminal fines or imprisonment or both on the failure of compliance. Criminal provisions include manipulating with the public water suppliers (article 445), dumping sewage in public ways (article 547 & 458), and deforestation of the country's green belts (articles 368, 369, 370).

A new amendment has been made regarding criminalising causing environmental pollution or deterioration. Article 149 of the Jordanian Criminal Code No, 16/1960 as amended by the Act No, 34/2002 criminalises all acts of terrorism, including acts committed with the intention to cause environmental pollution or cause harm to the environment. It imposes a punishment of five year imprisonment. Clearly this environmental terrorism amendment which was suggested by the Government and adopted by the Jordanian Parliament came as response from the State of Jordan to the increasing threats posed by fundamentalists and other terrorist groups who may carry out indiscriminate and irresponsible attacks. Although this amendment has been triggered by political rather than environmental motivation, but it shows that Jordan places the environment among its most important national interests.

There are 19 Jordanian legislations provide for criminal sanctions for environmental offences, these legislations include, the Public Health Act No 21/1971, the Agriculture Act No 50/1972, The Drugs Act No 11/1988, the Traffic Act No 14/1984 and its amendments, the Nuclear energy and Prevention from Radiation Act No 14/1987⁷⁷. Moreover, the Jordanian Law of Environmental Protection No 12/1995 has many provisions impose criminal sanctions in response to some unsound environmental activities, (i.e. Articles 22, 24, 25, 26, 27, and 28)⁷⁸.

⁷⁷ The Hashemite Kingdom of Jordan has been an active member of the International Atomic Energy Agency (IAEA) since joining it in 1966.

⁷⁸ Also, Jordan Valley Authority No 9/1975 and the Agriculture Act 14/1973

Despite the fact that more than 187 environmental articles spread through several Jordanian legislations, the environment is still suffering from the incoherent approach in handling environmental protection. All these Articles occasionally mentioned the term environment and if they did, it is often in an unrelated context and different subjects which creates overlapping regarding the competent authority and the standard of protection. There is a clear missing coherence among these legislations and by-laws.

7.4. Problems with the Jordanian environmental protection approach

In the view, Jordanian legal framework towards environmental protection and liability for environmental damage suffers from the following dilemmas:

1-Over-regulation or what can be called “legislative jam”; some topics are highly over-regulated; water for example, has treated in 7 laws and 2 by-laws. This creates an overlap in jurisdiction, which affects significantly the efficiency of implementation.

Article 38 of the Jordan Valley Authority No 9/1975 provides that “1-It is against the law to pollute water recourses situated in the Jordan valley by any dangerous substance, intensive and/or improper usage of fertilizers, pesticides, waste 2- the Jordan Valley Authority shall take action to prosecute the offender 3- the offender of this article shall bear the criminal imprisonment not less that one month up to three months or fine not less than 50 J.D up to1000 J.D or both, and the Court shall order the offender to remove the pollutant e, or the Authority shall undertake such removal of the polluting substance at the expense of the offender”

Whereas the Agriculture Act 14/1973 entrusts the Ministry of Agriculture the competence to protect, control, oversee water recourses in the Kingdom. Article 21 of this Act states that “1-polluting water recourses shall entail criminal liability of the polluter, 2- the polluter -who by his negligent conduct- discharge a polluting matter into public water shall be subjected to imprisonment up to six months and to fine up to 3000 J.D or both.” Although these two Acts provide for two different liabilities, they both can be invoked to prosecute the polluter of public water which might cause duplication of punishment or conflict among competent authorities

This problem also exists in the UK; incinerators for example are controlled under the Town and Country Planning Regime, Waste Management Licensing System as well

the IPC⁷⁹ and IPPC⁸⁰. In *Gateshead Metropolitan Borough Council v Secretary of State for the Environment [1995]*, the issue of overlapping arose when the Secretary of State granted a planning permission to a clinical waste incinerator according to the IPC System contrary to the opinion of the local authority and general public who challenged the decision because they were concerned about the potential pollution and argue that the IPC System overlaps critically with the IPPC Legislation. The High Court and later the Court of Appeal took the view that despite the overlapping between the two Systems but this overlapping between planning and pollution control powers is a matter of discretion and it varies according to the circumstances of each case and that the decision-maker may arrive at different conclusion in this regard ruling that if the public concern is not justified; it cannot be conclusive⁸¹.

2- Under-regulation: some topics are severely under-regulated, or even entirely unregulated. Solid waste management, for example, is only mentioned in one by-law dated back to sixties of the last century, bearing in mind that solid waste management causes a terrific environmental nuisance for the neighbouring localities especially near the landfills' sites.

3- The insufficiency of penalties: the penalties laid down in most of the legal instruments consist of fines; and since most of the laws and by-laws are dated back to sixties and seventies, these fines were insufficient if not marginal nowadays.

All the above-mentioned laws have a criminal taste and none of them make any reference to civil liability for environmental damage. There is no provision therein confers the injured party because of environmental damage the right to claim compensation, the same point could be made as regard to the damage affects environment itself whenever the damage occurs apart from any personal injury or preparatory right⁸².

Moreover, the fines imposed on the polluters according to Jordanian legislations have a criminal or administrative nature, they should be directed to the general treasury as a

⁷⁹ The Integrated Pollution Control System which introduced in the UK by Part 1 of the Environment Protection Act 1990, The IPC System aims at pollution control by assessing impacts of certain installations on the environment.

⁸⁰ The Integrated Pollution Prevention and Control Directive (96/61/EC) is about minimising pollution from various point sources throughout the European Union.

⁸¹ *Gateshead Metropolitan Borough Council v Secretary of State for the Environment [1995] Env LR 37*

⁸² As will be seen later, standing in civil litigations under the Jordanian jurisdiction is confined to those who have a legitimate interest infringed by the injurious conduct.

part of state revenue and do not reach the injured parties. A certain percent of these fines goes to the municipalities (local authorities) as a contribution in their budgets to enable them carry out their duties. Even though, the fines in these laws are not sufficient enough to deter polluters, and unlikely to create economic incentives to adopt environmentally friendly practice, instead their triviality may encourages polluters to continue to pollute as the fines for environmental offences might be much cheaper than the cost of cutting down their environmentally harmful activities.

It is worth mentioning that, the term “environmental damage” does not existence under Jordanian laws or regulations, the character of environmental damage has not received any attention of the Jordanian legislator. The same remark has to be mentioned as regard to the right of standing to claim compensation when the environmental damage affects un-owned environment in the case of pure environmental damage). Therefore, Jordanian Civil Code remains the only Jordanian legislation that can be applicable when it comes to claim compensation for environmental damage.

8. Civil liability for environmental damage under the Jordanian Civil Code

Environmental liability was mentioned in the Rio Declaration 199⁸³. Unfortunately, Jordanian legislations have never mentioned the term environmental liability or civil liability for environmental damage, nor does it pay any attention to the character of environmental damage, and the only possible way to seek damage resulted from environmental harm within Jordanian jurisdiction is the general rules governing civil liability in the Jordanian Civil Code (JCC).

In July 2002, a group of nearby residents brought a case complaining that the cement dust emanating from the Jordanian Cement Factories in Fuheis and Mahes has damaged their lands and caused serious effects to their homes, and that the use of petroleum coal in the process of manufacturing caused a high level of air pollution in the surrounding area. Based on Article 256 of the Jordanian Civil Code; the plaintiffs request an injunction and compensation to their damages estimated by more than 2 millions JDs⁸⁴. In the District Court of First Instant/ Fuheis and Mahes, the plaintiffs

⁸³ Principle 13 of the Rio Declaration, 1992 states that “states that “States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage...”

⁸⁴ J.D stands for Jordanian Dinar. The Jordanian national currency, around 1.7 million Pounds

have surprisingly been convinced to abandon their case⁸⁵, and a high Royal Committee of expertise has been appointed by Royal Decree to conduct a comprehensive investigation in the issue and to provide the cabinet with its conclusion and recommendation⁸⁶. The case was thought to be one of the most important cases in the Jordanian Judicial history⁸⁷. But the fact that the Government of Jordan is the dominant stockholder in the Cement Factories⁸⁸, besides the economic importance of the Cement Factories and its important contribution to the national economy influenced the way by which this case was handled⁸⁹.

8.1. The general features of civil liability under the JCC:

8.1.1. Strict liability:

Jordanian law is based on Civil Law and Islamic law principles. According to these principles, the plaintiff has only to prove his injury and to establish the causal link between his injury and the defendant's act or omission. Affected substantially by the rules of Islamic Law, Jordanian Civil Code adopts a strict liability regime in relation to claims of damage, without making difference according to the source of damage⁹⁰.

Injurious conduct 'tort' under the Jordanian Civil Code is a civil wrong resulting from an act or omission which has caused damage to other persons or property, regardless of whether or not the act or omission constitutes a crime. The general rule

⁸⁵ *District Court of First Instant/ Fuheis and Mahes, 12/2002*, the case was not reported. However, a reference has been to this case in the Royal Decree published in the Jordanian Gazette.

⁸⁶ Royal Decree of 20 July 2002, the Jordanian Gazette. Royal Decrees Section

⁸⁷ The Jordanian judicial system consists of several types of courts; firstly, the Courts of First Instance which are divided into two courts, the Magistrate Courts, and the Districts Courts of First Instance, secondly, The Court of Appeal and the Court of Cassation. These courts have competence in all civil and criminal cases. Administrative disputes fall under the jurisdiction of the High Court of Justice which is the first and final degree Court for all administrative disputes. The religious Courts have competence in all personal status disputes such as marriage, divorce, and inheritance. Moreover, many special Courts were created by special laws such as the Labour Court, the State Security Court, and the Municipalities Courts.

⁸⁸ The Jordanian Constitution provides for the independence of the judiciary. However, the judiciary remains subject to pressure and interference from the executive branch. A judge's appointment to, advancement within, and dismissal from the judiciary are determined by the Higher Judiciary Council and Minister of Justice, a committee whose members are appointed by the King. This executive power over the judiciary affairs affects to a significant degree the independence of judges.

⁸⁹ A significant outrage has been expressed by environmental interest groups criticising the Government for its misuse of power and partiality. This criticism was alleviated in the aftermath of the formulation of the Royal Committee.

⁹⁰ S. Adnan. & K. Nowry. "Jordanian Civil Code, the sources of obligations", 1997, p 52 & M. Abdelfatah. "Explanation of Environmental Legislations in Arab Countries", 1999, p 28

in tort liability is founded in Article 256 of the Jordanian Civil Code which reads as follows: “Any harm done to another shall render the actor, even though not a person of discretion, liable to make good the harm”.

This Article is founded upon original Islamic Shari’a principle which provides that “There shall be no damage and no infliction of damage and damage shall be eliminated”. This general rule is applicable to all kind of cases claiming damage unless a separate, and more specialised law governs the nature of specific harms. It is important to note that fault is not required in the defendant’s conduct⁹¹.

Article 256 of the Jordanian Civil Code provides that “every injurious -act or omission- shall render the person who commits it liable”. This Article made no requirement for the liable person to have discretion; which means that liability could be attached to people who do not reach the majority age or people with a mental disability. This particular feature proves that fault is not required in order to impose liability⁹².

This last possibility of imposing liability on people who are under the majority age or who lacks his mental abilities can not be justified easily. However, the Jordanian Court of Cassation make it clear that “...this kind of legal accountability is to be regarded only in its financial term, which means that the legislator intention is to compensate the victim, by making presumption of carelessness of the person who supervise the person suffering mental deficiency. Therefore, liability will be directed to guardian who will be liable vicariously⁹³.”

However strict; this rule shall not be applied, if the person conduct was a legitimate use of his rights; Article 61 of the Jordanian Civil Code states that “The legitimate permission to use the right absolve liability”. This Article lays down a defense which might have a significant effect in environmental damage cases, especially for activities which are authorised by regulatory authorities. Moreover, Article 61 along with Article 66/1 forms the principle of unlawfulness as a prerequisite for liability.

⁹¹ *The Jordanian Court of Cassation 231/1975, the Law Report 451, and 981/2000, The Law Report, 2637*

⁹² S. Adnan. & K. Nowry. “Jordanian Civil Code, the sources of obligations”, 1997, p 60

⁹³ The Jordanian Court of Cassation 9/1987, the Law Report. 103, the case was concerned with injury caused by a mentally disable person who committed injurious act which burn and damage the plaintiff’s property.

8.1.2. The unlawfulness test:

The principle governing the use of rights in the Jordanian Civil Code as well as in Islamic jurisprudence is legitimacy in its wide sense. Therefore article 66 of the Jordanian Civil Code states that: “66/1-Liability for damage shall be due from the person who exercises his right unlawfully”. The second paragraph of the same Article provides for the cases where the exercise of right is considered to be unlawful where it states:

“66/ 2-The exercise of the right shall be unlawful;

- a. If there is intent to aggress;
- b. If the interest to be achieved from the act is unlawful;
- c. If the benefit therefrom is disproportionate with the damage inflicted on others;
- d. If it exceeds custom and ordinary usage”

The court will judge the unlawfulness of the defendant’s conduct by applying these requirements which govern the individual’s behaviour while using his rights to determine its legitimacy; the first two considerations are related to intentional or malicious conducts which renders the conduct unlawful and subsequently imposes liability for the damage resulted from that conduct. These two considerations do not seem to have significance in the environmental context, whereas the last two are related to disproportionality and ordinary usage tests which may be used in determining the lawfulness of the defendant conduct and might have application in cases with environmental implications.

8.1.3. Disproportionality test:

Disproportionality between the benefit of the conduct and the damage resulting therefrom encompasses a reasonable balance to be made between the defendant and the plaintiff interests. Therefore, the court tends to be flexible with the act which is carried out for the public benefit or acts which resulted in a trivial damage which is reasonably expected in the ordinary life.

Article 1027/1 from the JCC provides that “The owner shall not exaggerate in the exercise of his right to the extent of causing damage to the neighbour’s property”. In a nuisance case between neighbours where the plaintiff complained from his carpenter

neighbour because of the noise and inconveniences from his nearby workshop, The District Court of First Instance of West Amman ruled that “The plaintiff can not recourse against his neighbour for the ordinary neighbourly damage which is unavoidable, but he may request the abatement of that damage if it exceeds the customary limits provided that consideration shall be given to custom, the nature of the buildings, the location of each of them and the purpose for which it is allocated”⁹⁴.

The principle of tolerable degree of inconveniencies among neighbours or what Lord Goff in *Cambridge Water Company v Eastern Countries Leather plc* (1994) called the principle of give and take as between neighbouring occupiers of land is well-established under English Common Law. According to this principle “those acts necessary for the common and ordinary use and occupation of land and houses may be done, if conveniently done, without subjecting those who do them to an action”⁹⁵. And the term ‘conveniently done’ may be interpreted so as to mean ‘not exceeding custom and ordinary usage’, the term used in Article 66/2/d of the Jordanian Civil Code.

The carpenter case can be considered as an environmental case in terms of noise pollution. However, the court while admitting that there was some noise, but it took the view that, the noise complained of is tolerable, and it made reference to the fact that the defendant had a license to undertake his work from the municipality of Greater Amman. Therefore the Court dismissed the plaintiff’s case.

In this case the court found the noise does not amount to intolerable degree having in mind that the activity in question was allowed by the competent authority according to the applicable law, this was clear from the court ruling when it recall Article 61 of the JCC which absolve liability for activities which are legitimately authorised. In justifying this ruling, one may notice that the locality in which the defendant undertook his activity was not designated as a residential area. Moreover, the plaintiff had an office in the same area practicing his own work as a merchant. These facts might justify the ruling to dismiss the claim. It was hoped that the court would discuss the issue of causing noise from an environmental angle and laid down some directions concerning such kind of nuisance.

⁹⁴ District Court of First Instance, West Amman, 120/2003

⁹⁵ *Cambridge Water Company- v- Eastern Countries Leather plc* (1994) 1 All ER 53(HL) & *Bamford v. Turnley* (1860) 3 B & S 62

8.1.4. Ordinary usage not exceeding customs:

This requirement implies that there is a standard or ordinary usage -having regard to customs prevailed in the circumstances- according to which the court judge the defendant's conduct.

The Jordanian Civil Code use the term 'ordinary usage' to express the unlawfulness of the injurious conduct, and made a flexible –albeit vague- standard to judge this ordinariness. Therefore, courts -in this respect- have a wide discretion to judge the defendant conduct; in order to determine the normality of the defendant' activity. In the above case, the court considered that the defendant had used his property under a legitimate permission, ruling that ordinary nuisance which do not exceed customs should be tolerable among neighbours⁹⁶.

The ordinary usage under the Jordanian Civil code -although lacks precision- was preferred by the House of Lords in *Transco* case, where Lord Bingham stated that "...ordinary user was a preferable test to natural user... That was not a test to be inflexibly applied: a use might be extraordinary and unusual at one time or in one place but not so at another time or in another place"⁹⁷.

This requirement also exists in the English common law under the rule in *Ryland's v Fletcher*. In *Cambridge Water Company v Eastern Counties Leather plc*, Lord Goff discussed liability under the rule in *Rayland's v Fetcher* ruling that; the defendant act must be none-natural user to be held liable. His Lordship recalled that use of the defendant's land must be of some special use bringing with it increased danger to others, and must not merely be the ordinary use of the land or such a use as is proper for the general benefit of the community"⁹⁸. Therefore, under the natural user doctrine, acts necessary for the common and ordinary use and occupation of land and houses if conveniently done do not entail any liability.

It is to be noted however that the House of Lords in *Transco plc v Stockport Metropolitan Borough Council 2003* gave a more restricted interpretation to the non-natural user when their Lordships ruled that the defendant's use of his land must be extraordinary and unusual which introduces special hazard"⁹⁹. Likewise the ordinary

⁹⁶ *District Court of First Instant, West Amman, 120/2003, Not Reported*

⁹⁷ *Transco plc v Stockport Metropolitan Borough Council [2003] UKHL 61*

⁹⁸ *Cambridge Water Company v. Eastern Countries Leather plc (1994) 1 All ER 53(HL), Rickards v. Lothian [1913] A.C. 263, 280*

⁹⁹ *Transco plc v Stockport Metropolitan Borough Council [2003] UKHL 61*

use term under the Jordanian Law, the term non-natural user still lack precision and clarity despite the ruling of the House of Lords in Transco case, the words extraordinary and unusual, although emphasised the strict application of the term, but it did not clarify it any further.

8.1.5. Requirements of liability under Article 256 of the JCC:

The application of article 256 of the Jordanian Civil Code encompasses three conditions; injurious act or omission, damage, causal link between the injurious conduct and the damage inflicted.

a. No fault liability:

It is obvious that for the damage to be awardable, the plaintiff need not to prove any fault in the defendant's conduct, in numerous cases Jordanian Court including the Court of Cassation follow the rule that no fault is required under Article 256¹⁰⁰. However, the Court of Cassation in surprising rulings required fault committed by the defendant in order to hold him liable. The court of cassation in subsequent two decisions ruled that "... in order to award compensation, there must be a fault committed by the defendant resulted in the plaintiff's injury, and there must be a causal link between this fault and the injury for which damage is claimed, therefore, and as the defendant committed no fault, no compensation can be awarded"¹⁰¹.

These two cases were related to medical negligence and the court relied heavily on the experts' report which denied any negligence committed by the defendant physicians. However, such rulings undermine the basis of liability adopted by Jordanian Civil Code, and openly contradict the law by adding a new requirement which does not exist in article 256¹⁰². But, as Jordan does not apply judicial precedents, these ruling are not binding and any Jordanian court can decide differently¹⁰³.

Despite this judicial stand, it is still right to say that Jordan applies strict liability regime. This regime adopted by the Jordan legislator can be applied for environmental damage, the important point that has to be made here is that, Article 256 wording is

¹⁰⁰ 231/1975, 980/1982, 119/1997, 402/2002, in all these cases, the court of cassation award damage without looking for a fault in the defendant's conduct.

¹⁰¹ *The Jordanian Court of Cassation 316/96 Law Report 1996*, p 406 (The same ruling was issued in Cases No 380/ 1988 and 965/1990)

¹⁰² In all cases, courts are not required to ascertain a fault in the defendant conduct, and the plaintiff is not required to prove any fault to be awarded damage. See Z. Mustafa. "Injurious acts and the damages in Islamic Shari'a and Jordanian Civil Code". Dar Al Elm. Damascus. 1988. P 71.

¹⁰³ A. Mofleh. "The Jordanian Legal System: An overview". 5th ed. 2001, pp 217- 244

formed in such a way so as to cover all kinds of damage; since the emphasis is put on the damage rather than on the injurious conduct.

b- Damage:

No liability is to be imposed unless actual damage is proved. This damage can be personal injury; damage to property as well as economic loss. All these kinds of damage are recoverable under the Jordanian Civil Code which provides that; “Compensation shall be estimated by the amount of the damage inflicted on the injured person and his loss of profit provided that this loss shall be the natural result of the injurious act”¹⁰⁴.

As for the immaterial damage, the Jordanian civil code provides that “immaterial harms are recoverable as a general rule, Article 267 states that: “The right to damages shall also include immaterial damage”. Forms of immaterial harms are mentioned in the second paragraph of Article 267/2 which provides that: “any trespass on another’s liberty, honour, reputation, social or financial status shall render the person who commits the trespass liable for damages”.

The ability to recover immaterial damage is restricted to these forms of immaterial damages. In a case No 481/1998 the Court of Cassation reject to award damage for the plaintiff who suffered a mental stress and sorrow as a result of the defendant act which injured the plaintiff. The plaintiff argued that such suffering and sorrow were recoverable under article 267/2 of civil code because the forms of immaterial damage mentioned in that article are only examples.

In reasoning its judgment the Court ruled that: “the term ‘immaterial damage’ used in Article 267/2 is restricted to forms of immaterial damage mentioned in that article”¹⁰⁵. In this case, although the court express its sympathy with the plaintiff, but it regretfully rejected to expand the recoverability of immaterial damage beyond the forms recoverable by the explicit wording of Article 267. However, it is not a sound argument to assert that mental stress and sorrow are not recoverable immaterial harms just because the Civil Code did not mention them among those forms, indeed, human bodily and spiritual wholesome is to be protected under the law.

¹⁰⁴ Article 266 of the Jordanian Civil Code

¹⁰⁵ *The Jordanian Court of Cassation, No 481/1998, The Law Report, 1998 at p 662*

As for harms in the form of environmental amenities, in theory, it can be said that it is recoverable according to general principle laid down in Article 267/1 which allows the court to award compensation for immaterial damage. However, no reported cases have been raised to demand compensation for losing environmental amenities, and in light of the uncertainty concerning the judicial approach that the Jordanian courts may adopt in environmental damage cases in general and restricted view of the recoverable forms of immaterial damage shown in the above-mentioned case, it is unlikely that harm to environmental amenities will be considered as a compensable damage. Notably, damage to environmental amenities is not recoverable under the English Common law; in *Hunter v Canary Wharf Ltd [1997]*, the House of Lords denied the recoverability of the loss of amenities under nuisance.¹⁰⁶

In awarding damage, the courts have a discretion to decide between the two options; courts may award damage in terms of sum of money being paid to the plaintiff within the scope of Article 266, or courts may award injunctive relief to abate the injurious act under the application of Article 269/2 which states: "Damages shall be estimated in money, but the court may subject to the circumstances and on the application of the injured party order restoration to the former position", and Article 3 of the Jordanian Act to Regulate the Courts of First Instance 1954 which allows the court to order an injunctive as a preventative measure to prevent potential damage from being inflicted. As for environmental damage, award of damages is not always sufficient, where the damage can be permanent or irreversible (e.g. destruction of habitat for a threatened species, or demolition of a heritage building)¹⁰⁷. But courts show a great reluctance in awarding an injunctive relief as they require the foreseen damage to be irreversible and devastating to justify such abatement¹⁰⁸.

It's obvious from all above-mentioned problematic issues that even with civil liability rules which are applicable to all kinds of damage including environmental damage; the practical difficulties should not be underestimated. These difficulties fundamentally decrease the plaintiff chance to get compensation when he suffers an injury attributable to environmental damage.

¹⁰⁶ *Hunter v Canary Wharf Ltd [1997] 2 All ER 426*

¹⁰⁷ Z. Mustafa. "Injurious acts and the damages in Islamic Shari'a and Jordanian Civil Code". Dar Al Elm. Damascus. 1988. P 90.

¹⁰⁸ *District Court of First Instance- West Amman 165/1978, Not Reported*

The problem of estimation of the damage is a common issue in civil litigations. And it may be of significant importance in environmental damage case. The rule provided in Article 266 of the Jordanian Civil Code may be sufficient if there is only a traditional damage caused to plaintiff's health or property.

However, it remains insufficient in the case of damage being caused to the environment per se or to its amenities; since translating environmental damage into monetary terms is arguable if possible at all. Article 268 of JCC may provide a solution for part of the problem of estimation of the damage; it provides that: "If the court can not finally decided the extent of damages it may preserve for the injured person the right to apply for reconsideration of the estimation within a limited period of time". But this article deals only with the difficulty, which arises when attempting to estimate damage in monetary terms, but it provides no solution when the difficulty faced by the court is the principle of estimation as in pure environmental damage¹⁰⁹.

c. Causation:

Causation is an expression of the relationship that must be found to exist between the tortious act of the defendant and the injury to the plaintiff in order to justify compensation.

In most of civil liability cases, causation is problematic issue. The plaintiff is under the obligation to establish the causation in order to be entitled to get compensation from the defendant. Article 257/2 simply states that "The act of the defendant must lead to the injury of the plaintiff.

This general rule under the Jordanian Civil Code requires the plaintiff to establish on the balance of probabilities that the defendant's conduct has caused his injury. No statutory presumption of causation has been provided by the law and "it is for the plaintiff to present evidences that he sustained damage because of the defendant wrongdoing"¹¹⁰. This traditional rule governing causation may not be suitable if environmental damage is in question. Environmental damage does not always appear before long time, which means more difficulty in establishing liability elements or

¹⁰⁹S. Adnan & K. Nowry. "Jordanian Civil Code, the sources of obligations", 1997, p 379, also M. Abdelfatah. "Explanation of Environmental Legislations in Arab Countries" P 38.

¹¹⁰ *The Jordanian Court of Cassation, 934/1978, the Law Report 1979*

because of the limitation period set by the law itself¹¹¹. Moreover, there might be uncertainty to attribute certain injury to certain factor, or even the damage might be the result of combination of multiple factors in such away that no clear factor is deemed to be the cause of damage.

As for the last situation, the Jordanian Civil Code does not have an answer for this question but the defendant who seeks damage has the chance to sue all potential defendants, then court guided by evidences will determine the liable defendant among them. Moreover the court has the authority to divide damage awarded to the plaintiff among all responsible defendants, so as each defendant bear his share in the harm caused by its activity. Article 265 of JCC read as follows: "If the persons responsible for the injurious act shall be several, every one of them shall be liable for his share therein and the court may rule between them severally or jointly. Clearly the court will held the defendants jointly or severally liable where evidence shows the plaintiff injury has been resulted from their conducts, but it can not determine the extent of damage to which each defendant is liable.

The same authority can be applied when the plaintiff contributes with his own activity to the damage he suffered from. Article 264 of the Jordan Civil Code states: "The court may decrease the amount of damage or may not grant any damage if the injured person has contributed by his act to the causing of the damage or to its increase".

D-Natural result test and Remoteness:

Article 266 of the Jordanian Civil Code requires the plaintiff's injury to be the "natural result" for the injurious act. It reads as follows: "the injury shall be the natural result of the injurious act". This encompasses the requirement of remoteness between the injurious conduct and the harm sustained. Remoteness requires that the damage inflicted must not be too far from the defendant's conduct. The courts will not held the defendant liable and therefore award damage to the plaintiff unless a certain degree of remoteness is reasonably established. This degree of remoteness is to be determined by the court. Courts in this regard have discretion and normally apply an objective standard to decide this issue. The natural result is the result that, the ordinary man will reasonably expect to occur as a result of the tortfeasor's conduct or

¹¹¹ The limitation period under the Jordanian Civil code is 3 years from the date in which the plaintiff knew or ought to have known of the occurrence of the damage and the person liable for it, and in all cases 15 years from the date of the plaintiff injury.

the result for which the defendant's conduct is considered to be the approximate cause without which the injury would not have occurred.

The Court of Cassation dismissed an action because the damage in question was not a natural result in the circumstances involved, this case was not concerned with environmental damage, rather it was about a bodily injury to the plaintiff who then was admitted to the hospital where he suffered a critical burning because of fire unexpectedly occurred in the hospital, the court award compensation as for the first injury and reject any extension to such compensation to cover the damage resulted from the burning ruling that "natural result is the result that the ordinary person would expect to follow from certain act. Therefore, it is obvious that the burning was not a natural result of the defendant conduct and the law requires that the recoverable damage must be the natural result of the injurious act"¹¹². The Court rejected the argument that it is because of the defendant's act, the plaintiff was admitted to the hospital, saying that, by accepting this argument, the defendant would be liable for unlimited chain of events which may be unrelated to his injurious act. And cited Article 261 of the Jordanian Civil Code which includes the intervening events that break the chain of causation and exempt the defendant from liability by stating that "if the defendant prove that plaintiff's injury was the result of a *force majeure*¹¹³, or intentional conduct of a third party or the plaintiff's conduct, he will not be liable for that injury"¹¹⁴.

Natural result requirement may be seen as an application for the foreseeability test applied under the English common law in the sense that the defendant will not be liable for the damage which he can not reasonably foresee. However, the "natural result test" seems to be more objective than the foreseeability test; the Jordanian Court of Cassation ruled that: "the "natural result" term used in Article 266 is meant to hold the defendant liable only for injurious result which is considered by the ordinary man to be the natural result of his conduct. The facts of each case are of great

¹¹² *The Court of Cassation, 9/1998, Law Report 1998, p 32*

¹¹³ This is the most proximate translation for Article 261 of the Jordanian Civil Code which reads in Arabic as follows:

إذا ثبت الشخص أن الضرر قد نشأ عن سبب اجنبي لا يد له فيه كافة سماوية او حادث فجائي او قوة قاهرة او فعل الغير او فعل المتضرر كان غير ملزم بالضمان

The 'force majeure' under the Jordanian Civil Code and its Explanatory Memorandums stands for an event which should have an exceptional, inevitable, and irresistible nature.

¹¹⁴ Moreover, article 262 of the JCC provides that "the injury which resulted from a self-defense act shall not entail compensation provided that the defendant does not exceed the necessity".

significance in determining this issue and the Courts have discretion to decide whether or not the injury sustained by the plaintiff can be regarded as a natural result for the defendant's wrongdoing"¹¹⁵; and in deciding this issue the court shall apply an objective standard which is the ordinary man standard¹¹⁶. However, the Court of Cassation did not use the term 'remoteness' or 'foreseeability' and based its judgment to the wording of the Civil Code which requires the plaintiff's injury to be the 'natural result' for the defendant's conduct.

8.2. Standing in civil litigations:

Standing in civil litigations is governed by the traditional rules incorporated in the Jordanian Civil Procedural Act 24 of 2002. Jordanian Civil Procedures Code does confer the plaintiff the right to bring action only if he has a protected or legitimate legal interest; such as preparatory rights, bodily integrity or financial interest.

Article 3/1 of this Act stipulates that "No claim or plea shall be accepted unless the applicant proved a legitimate and actual interest in the subject matter", Paragraph 2 of the same article reads as follows "the potential interest shall be accepted only to prevent imminent and irreversible damage". These rules apply to all civil actions. However, Jordanian courts have adopted a strict approach to interpret this article so as to verify the requirement of interest before proceeding with any litigation. In its interpretation to this article Jordanian courts add some others criteria to accept such interest, in a systematic rulings the courts require this interest to be personal so that; an action will be dismissed if the plaintiff has no personal and legitimate interest in bringing the case. The personal interest has been interpreted by the Jordanian Court of Cassation to "...an interest that if infringed, the plaintiff would suffer damage to his bodily integrity, property or his financial status..."¹¹⁷, this judicial addition for the requirement of legitimate interest is clearly limited if it has to be applied in environmental damage cases where the damage affects the environment *pre se*.

As for the victims of environmental damage, the courts will judge the admissibility of their actions according to the requirement of interest, and a person who has personal

¹¹⁵ *The Court of Cassation, 246/1997, Law Report, December 1997, p 920*

¹¹⁶ According to jurists, the ordinary man standard –as appose to the professional man standard- is the standard of conduct, expectation, and diligence expected from human beings in their daily life affairs. See A. Al Sanhory, "Assays in Civil Law Theories", 1982, pp 210-216, Cairo University Press.

¹¹⁷ *The Court of Cassation 1045/96, Law Report, p 2110, and the Court of Cassation 178/2001, Law Report, p 308*

and legitimate interest certainly will have standing to claim compensation to make good this kind of damage if he suffers damage to his physical integrity or his property or financial status. As a result of this, traditional damage resulted from environmental harms does not raise legal problem as far as the issue of standing is concerned.

This judicial approach of applying traditional rules of standing in cases involved environmental damage per se or damage caused to the unowned environment¹¹⁸, will delimit the role of individuals and Jordanian environmental interest groups if these groups decide to claim compensation needed for environmental restoration and clean-up measures as they can not show any personal interest within the judicial interpretation for the interest requirement¹¹⁹.

However, an interesting point was made in Jordan with the enactment of the Jordanian Act for the Protection of the environment 12/1995. This Act established for the first time in Jordan a legal entity to be responsible for all environmental affairs in the country which is the General Corporation for Protection of the Environment, GCPE¹²⁰. According to this Act, the Corporation shall be represented in courts by the Civil Attorney General in cases by the Corporation of against it. Article 3 of the Act States that: "the General Corporation for Protection of the Environment shall be represented by the Civil Attorney General in court cases raised by it or against it".

And then the Act specified the aim of this entity when article 4 provides that "The Corporation aims to promote protection of the environment and the improvement of its various elements and the execution of this policy in co-operation with the relevant authorities". Among theses authorities the right to issue instructions", decisions, and general standards of acceptable level of pollutants, besides these authorities, the Corporation has the right to monitor the implementation of all decisions and standards. The environmental Act provides that: "The Corporation shall be considered the appropriate authority for protection of the Environment in the Kingdom. And all official and private establishments shall execute the instructions and decisions which

¹¹⁸ No unowned land exists in Jordan; according to the civil code, the state is the owner of all land which had no owner article (1181) of the Jordanian Civil Code. But beyond the land there are some other elements of environment, such as flora, fauna and amenities of the environment

¹¹⁹ There are many environmental interest groups such as The Royal Society for Conservation of Nature, Jordanian environment society and Friends of the environment.

¹²⁰ Article 3 of this Act stated that "An official general corporation called "the General Corporation for Protection of the Environment shall be established as a corporate entity, which has administrative and financial independence, and has in this respect, the right to act in all legal procedures. Including the ownership of liquid assets or property and acceptance of gifts, endowments, inheritance and Waqf and execution of contracts and loans and shall be represented by the Civil Attorney General in court cases raised by it or against it".

are issued in accordance with this Law and Regulations: and shall be subject to the penal and civil responsibility decreed in this law and any related legislations”¹²¹.

Form this Article and Article 3, it is clear that the legislator empowered the corporation with the right of standing in order to execute its authorities, and accordingly the right to bring action against other individuals or enterprises which breach these decisions and standards causing harm to the environment. However, in practice, the General Corporation for the Protection of the Environment is a semi governmental organisation and it has not been recorded that the Corporation used its authority to sue polluters. Moreover, the Jordanian Constitution does not confer citizens an actionable right to healthy environment. Therefore, it believed that that environmental interest groups or individuals are not allowed to take actions against the polluters. Therefore, there is a suggestion that environmental interest groups shall be allowed to sue and claim compensation in the case of ecological damage and damage to flora and fauna¹²². However, such a right of environmental interest groups requires amendment being made to Jordanian Civil Procedural Act or the Environmental Protection Act to include the right of standing by interest groups or none-governmental organisations.

9. Nuisance among neighbours: Restrictions on Property:

This part of the Jordanian Civil Code bears the title: “Restrictions on Property”. It provides protection for owners from any gross damage caused to them or to their properties by their neighbours. However important, the protection provided in this part has a limited scope; it will only apply for damage among neighbours and it is available for person who has property right. However, I believe that lessee has a legitimate interest and therefore, he can utilise from this protection even though the law does not provides explicit article for this effect.

This situation is similar to that exists under common law actions of nuisance which provides protection for one who has property right and moreover for one with exclusive possession like lessee¹²³.

¹²¹ Article 9 of the Jordanian Act for the Protection of the Environment

¹²² M. Ameen. “Procedural protection to environment”, University Publisher-Aleskanaria, 2001, p 108

¹²³ *Hunter v Canary Wharf Ltd* [1997] 2 All ER 426

Article 1121 of the Jordanian Civil Code states that: “The owner may dispose of his property as he deems fit unless his disposition is seriously harmful to others or contravenes the law relating to the public or private interest”. This article organises the usage of property right giving the owner a wide authority to use his right to fulfil his own interest putting one limitation on owner’s freedom when his use deems to cause harm to others.

As seen above, this rule is supported by article 1127/1, which read as follows: “The owner shall not exaggerate in the exercise of his right to the extent of causing damage to the neighbour’s property”. These rules confirm the limitation that the owner has to comply with when he uses his rights, he is under a general duty not to cause harm to others and to use his right without exceeding the ordinary usage discussed above¹²⁴.

Jordanian civil code gives some examples for nuisance acts in article 1125, which provides that: “Obstructing light which affects neighbour shall be considered as gross damage that render the causer liable for remedying the plaintiff’s damage”. This rule applies to nuisance among neighbours and it can be interpreted widely so as to cover more inconveniences like smells, noise and other nuisances.

In an interesting old case, the plaintiff complained from awful smells emanating from his nearby neighbour’s field, in that case the defendant used animal’s droppings as manure which emanates odours in surrounding areas. The plaintiff complained that the odour was so strong to the extent that he could not put up with especially in summer’s nights, and argued that Article 1124 and 1127 from the Jordanian Civil Code provides protection for him against such situation in which he was deprived from enjoying with his home amenities. Article 1124 of the JCC provides that “Gross damage is that which causes the weakness or destruction of the property or precludes the original uses or benefits intended from it”.

The District Court of First Instance found that the plaintiff case has a merit on the fact that the law protects the owner from gross inconveniences caused by his neighbour, and ordered the defendant to hold the usage of animal’s droppings and use another cleaner fertiliser according to Article 3 of the Jordanian Act to regulate the Courts of First Instance 1954¹²⁵. This ruling provides an example in which the court interpreted

¹²⁴ *District Court of First Instance, West Amman, 120/2003*

¹²⁵ *District Court of First Instance-West Amman 165/1978, Not Reported*

Article 1124 so as to provide protection for owners from any nuisance which preclude the benefits of their properties.

Chapter Four:

Civil liability for environmental damage in the UK

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1. Introduction:

Civil liability for environmental damage in the UK significantly involves tort law¹, which is the body of common law that deals with wrongs committed among parties outside contractual obligations².

The historical evolvement that has been taken place in tort law is somehow significant and reflexes the evolvments of the society itself³. It has been said that: "Common law is an open system in the sense that it must give an answer to any problem, however novel. And it must also respond to the changing social and political values of the community"⁴.

Cases in which persons have suffered a personal injury or harm to their properties as a result of environmental impairment are common in today's life. These cases are best described as "toxic tort" which is a shorthand phrase used for any case where an individual claims to have suffered damage to person, property or to the quiet use or enjoyment of his property as a result of environmental damage⁵.

Indeed this kind of cases were always aimed at compensating the plaintiff to make good the damage where it is supposed that the plaintiff will be in the same situation if the damage would have not been happened. it was ruled that "Where an injury is to be compensated by damages, in settling the sum of money to be given for the reparation of damages you should nearly as possible get at that sum of money which will put the party who has been injured, or has suffered, in the same position as he would have been in if he had not sustained the wrong for which he is now getting his compensation or reparation"⁶.

This above mentioned feature describes the main function of tort law as a means aims at compensating victims of verities of tortious acts.

¹ "Environmental Liability in the UK: Overview", Freshfields Bruckhaus Deringer, March 2003

² Kuneduter. H & Freeman. P, "Insurability, Environmental Risks and the Law", In "The law and Economics of the Environment", Edited by Anthony heyese. Edward Elgar Publishing limited, 2001,p 303

³ Deakin. S "The Evolution of Tort" (1999),19, *Oxford Journal of Legal Studies*, pp537-546

⁴ See Alder. J & Wilkinson. D, "Environmental law and ethics", Macmillian Publishing, 1999, P222.

⁵ The expression is relatively newcomer to the language of English law. It is, not surprisingly, a term borrowed from the United States. See P. Charles & D. Mattyn. "Toxic torts" (1991), 141, *New Law Journal*, p 1549, also Pugh, C & Day, M "Toxic Torts", Cameron May Ltd. 1992. p 2

⁶ *Livingstone v. Rawyards Coal Co. [1880] 5 App. Cas25*

However, tort law provides the necessary legal foundation regarding liability for environmental damages. Nuisance actions were the most popular, because they allow a successful claimant not only to receive compensation, but also a court order to abate the nuisance, such as smell or smoke⁷. Other tort law doctrines also have a potential application when environmental damage is in question; these torts are the rule in *Ryland's v. Fletcher*⁸, trespass, negligence and the breach of statutory duty.

Certainly there are many legal issues emerge when these norms are to be used to claim compensation where environmental damage is in question. Some of these legal difficulties are attached with environmental damage by its nature i.e., the requirement of fault in negligence, and the establishment of the causal link in environmental cases especially in the case of long term impairment of the environment through the gradual discharge of contaminants that lead eventually to pollution, the pollution of groundwater as a result of badly managed landfill sites, or leaking underground storage tanks. Other difficulties are associated with the tort law itself, i.e. the fact that most tort law doctrines are particularly concerned with the protection of private property rights or individuals' interests.

2. Proprietary rights and common law liabilities

The concept of property is an important factor in tort law; as the earliest tort, namely trespass, nuisance and the rule in *Ryland's v Fletcher*, arose in the context of the protection of private interests in land. It has been ruled that: "He alone has a lawful claim, who has suffered an invasion of some proprietary or other interest in land"⁹. Negligence is the only tort where proprietary rights or interest in land is not required.

This was understandable because the rules of tort are rules of private law which protect only private interest. For example in private nuisance a right to take action must be combined by a proprietary interest in land¹⁰. In the civil law system like in Jordan, plaintiff invokes tort and property law to defend their infringed rights. The term

⁷ Morrow. K "Nuisance and environmental protection", in "Environmental protection and the common law" Edited by Lowry. J & Edmunds. R. Oxford – Portland Oregon 2000. p 139

⁸ *Ryland's v. Fletcher* (1866) LR 1 Exch 265

⁹ *Read v. Lyons & Co. Ltd* (1947) A. C. 156. Generally speaking it's believed that "property law place a higher value upon economic concerns than upon environmental concerns". See Alder. J & Wilkinson. D. "Environmental Law and Ethics", Macmillian Publishing, 1999, p244

¹⁰ See *Hunter and Others v Canary Wharf Ltd.* (1997). 2 All ER 426

“legitimate interest” which is the basis on which the plaintiff under the Jordanian Civil Procedural Act founds his claim encompasses proprietary interests¹¹.

This view was affirmed by the House of Lords in *Hunter and Others v Canary Wharf Ltd* (1997) where their Lordships insisted on the requirement of exclusive possession as a prerequisite to the bringing of a private nuisance action. In this case, their Lordships took a conservative approach regarding the protected rights and interests under nuisance, and stood firm to limit private nuisance to rights and interest in land¹². The House of Lords ruled that: “the starting point for an action in nuisance is an interest in land. A person must at least be able to assert exclusive possession of land to be able to bring an action in private nuisance”¹³.

In *Hunter*, the plaintiff was prohibited from receiving a TV signals because of the Canary Wharf Tower, although this claim can be seen from an environmental perspective as depriving the defendants from their right to enjoy their home amenities, but Lord Hoffmann did not consider this issue adding from his part: “... the development of the common law should be rational and coherent. It should not distort its principles and create anomalies as an expedient to fill a gap”¹⁴.

Therefore, and following the decision in *Hunter* case, the court rejected a nuisance claim brought by a wife who had no proprietary interest¹⁵. It is to be mentioned that this restrictive approach has been adopted long before *Hunter*, thus In *Malone v Laskey* [1907] concerning a nuisance caused by harassment with phone calls, the Court of Appeal held that only a person with a possessory or proprietary interest in the land alleged to be the subject of the nuisance could sue¹⁶.

However, this approach was challenged later in the case of *Khorasadjian v Bush* [1993], this case was concerned with the same issue, the defendant used to pester the daughter of a house owner with telephone calls. Lord Dillon LJ in the Court of Appeal rejected this restriction describing it “ridiculous”. His Lordship stated: “To my mind it is ridiculous if in this present age the law is that the making of deliberately harassing

¹¹ Article 3 of the Jordanian Act to Regulate Courts of First Instance stipulates that no claim or plea shall be accepted under the plaintiff has a legitimate interest in the subject matter.

¹² John Wightman, “Nuisance- The Environmental Tort? *Hunter v Canary Wharf* in the House of Lords”. (1998), 61, M. L. R, pp 870-885. And Maria Lee and Robert Burrell ‘Liability for the Escape of GM Seeds: Pursuing the ‘Victim’?’ (2002), 65, M.L. R, pp 517-537.

¹³ John Wightman, “Nuisance- The Environmental Tort? *Hunter v Canary Wharf* in the House of Lords”. (1998), 61, M. L. R, pp 870-885

¹⁴ *Hunter and Others v Canary Wharf Ltd*. (1997) 2 All ER 426

¹⁵ *Blackburn v ARC Ltd* [1998] Env LR 469

¹⁶ *Malone v Laskey* [1907] 2 KB 141

and pestering phone calls to a person is only actionable in the civil courts if the recipient of the calls happens to have the freehold or a leasehold proprietary interest in the premises in which he or she has received the call”¹⁷.

This liberal ruling has been shown in a recent case, where when the High Court rejected to strike out a nuisance action brought in respect of distress and physical harm because of noise and emissions from the defendant factory, the case was brought by a number of plaintiffs some of them are children who are merely permanent residents living in the properties and have no possessory or proprietary interest.

In *McKenna v British Aluminium Ltd [2002]*, the High Court ruled that “there is obviously a powerful case for saying that, effect has not been properly given to Article 8 (1) of the European Convention for the Protection of Human Rights and Fundamental Freedoms if a person with no interest in the home, but who has lived in the home for some time and has had his enjoyment of the home interfered with, is at the mercy of the person who owns the home, as the only person who can bring proceedings”¹⁸.

Interestingly, the idea of widening the right to sue in nuisance was founded in *Hunter* case itself by dissenting judgment given by Lord Cooke who was of the opinion that those who live in the home even if they have not a proprietary interest in the strict sense or exclusive possession have the right to sue. His Lordship was aware that the time had come to give legal effect to interest in the family home other than those of the occupier and that the historical analysis is only of limited use in determining the future shape of common law¹⁹.

While advocating the idea that the right to sue should not be limited to those only has proprietary right or exclusive possession, but rather to anyone who live in the home Lord Cooke said: “international standards such as -he referred to- the United Nations Convention on the Rights of Child- may be taken into account in shaping the Common Law”²⁰. It seems that his Lordship was aware of new challenges ahead for the common law in the emerging environmental cases.

It is -indeed- a good start to think about the wider and potential function that common can play in the environmental arena. However, the fact that *Hunter* case while

¹⁷ *Khorasadjian v Bush* (1993) 3 WLR 476; (1993) 3 All ER 669

¹⁸ *McKenna v British Aluminium Ltd [2002]* Env LR 30

¹⁹ Wilde, M. “Locus Standi in Environmental Torts and the Potential Influence of Human Rights Jurisprudence”, (2003), 12 (3), RECIEL, p 293

²⁰ *Hunter and Others v Canary Wharf Ltd. (1997)* 2 All ER 426

involving environmental aspect which was the home amenities but the case was not concerned with the unowned environment or environmental damage per se, since the case involved a plaintiffs who lived at the home affect by the construction of a Canary Wharf. The proprietary right still existed there; the plaintiff, who lives in the home even if he is not the owner or lessee with exclusive possession, has a sort of interest in that home that may justify affording him protection.

The restricted approach of requiring proprietary or possessory right in order to have the right to sue in most common law actions certainly weakens tort law when it is to be used in environmental damage case especially where damage affects environment where no one has proprietary right to bring action against the polluter, this situation contradicts the essence of the polluter pays principle, but it reveals that common law neither recognise a right to environmental quality nor it adopt environmental principles in an express manner²¹.

However, some writers noticed that the protection of proprietary rights under common law doctrines may incidentally provides a general benefit to the community at large and ultimately contributes to environmental conservation²².

A remarkable case in this regard can be cited to show that the common law protect proprietary right where water pollution in question. In *Pride of Derby and Derbyshire Angling v. British Celanese Ltd, and others [1952]*, a fishing club, Pride of Derby, and its association, sought an injunction in a nuisance case against the defendants discharged sewage and polluting effluents, which polluted and raised the temperature of the River Derwent, causing damage to the club who has fishing right.

The lower court issued an injunction restraining the three defendants from reducing the quality of the river's water. On Appeal, Chancery Court upheld the injunction, giving absolute priority to plaintiff's right to fish which is considered to be an established proprietary right noting that damages would be an inadequate remedy for the angling club, whose members want to exercise their right to fish.

The notable remark about this case is that, it illustrates the effectiveness of common law in protecting property rights-in this case the right to fish- and shows how this protection can bring benefit to the environment by preventing future environmental

²¹ See generally Alder. J & Wilkinson. D. "Environmental Law and Ethics". Macmillian Publishing. 1999, p220

²² Bell, S & McGillivray, D "Environmental law" 5th edition BlackStone Press Limited, 2000, 258, see Alder. J & Wilkinson. D. " Environmental Law and Ethics". Macmillian Publishing. 1999, p231

damage. However, the case proves that common law action can be useful in environmental damage cases where the plaintiff has a proprietary right, and therefore, restricted its effectiveness where the damage affects the environment *pre se*.

One may argue that environment and its components should have the right to claim damage since aesthetic and environmental well-being, are important ingredients of the quality of life in the society, and the fact that particular environmental interests are shared by all rather than certain persons does not make them less deserving of legal protection through the judicial process "It is not inevitable, nor is it wise, that natural objects have no rights to seek redress in their own behalf...One ought, I think, to handle the legal problems of natural objects as one does the problems of legal incompetents"²³.

However, the future of this argument remains uncertain under the common law liability which confines its protection to proprietary right and interest in land. In environmental damage this restricted approach affects the right of standing "*Locus standi*" where the damage caused to the environment as such. It particularly foreclosed the possibility of further expansion of the tort in away that might have enabled claims to be brought in the case of environmental damage, such as cases that might be brought by environmental interest groups²⁴. Putting a side the fact that personal or property damage does not always represent the actual damage caused to the natural environment.

3. Civil liability for breach of statutory duty:

Apart from traditional tort law, certain statues contain provisions which create civil right of action where criminal liability is established (Breach of statutory duty)²⁵. This kind of compensation actions is an independent tort and the standard of liability - unlike negligence for example- is to be determined by the statue which creates such duties.

²³ Stone, G. "Should Trees Have Standing? Towards Legal Rights for Natural Objects" (1972), 450, S. Cal. L. Rev, p 545

²⁴ Bowman. M, "Towers, Televisions and Troubles in the Isle of Gods- the Law of Nuisance Revisited", (1997), 5 (6), *Journal of Environmental Liability*, p 130- 135

²⁵ Wilde. M "Extending the Role of Tort as a Means of Environmental Protection: An Investigation of recent Developments in the Law of Tort and the European Union", University of Brunel, 1999, p 41. And Lee. M, "Civil Liability of the Nuclear Industry", (2000), 12 (3), *Journal of Environmental Law*, p 318

Under section 73 (6) of the Environmental Protection Act 1990 “where any damage is caused by the unauthorised depositing of waste contrary to section 33 (1) and 63 (2), the person who has committed the offence is liable for the damage. Persons suffering damage in such circumstances may bring a claim under civil law based on this section”.

A breach of statutory duty is found also in section 12 of the Nuclear Installations Act 1965. This provides that “any person who suffers injury or damage as a result of a breach of any duties set out in section 7 to 10 of the Act shall have a right to compensation”²⁶.

The leading case in this context is the *Blue Circle Industries v Ministry of Defence 1997*, which has been brought under the Nuclear Installations Act 1965 applied throughout the UK. Blue Circle claimed compensation against the Atomic Weapons Establishment owned by the Ministry of Defence for, *inter alia*, breach of statutory duty under the Nuclear Installations Act 1965. The plaintiffs asserted that their estate became contaminated with radioactive material.

In the High Court, the judge noticed that the Act imposes strict statutory duty on holders of a nuclear site license to ensure that no occurrence involving nuclear matter causes injury to any person or damage to any property of any person. And held that there had been a breach of statutory duty imposed and awarded Blue Circle over £5m for the loss in value suffered by Blue Circle. In doing so the court found that the *Nuclear Installations Act 1965* provided strict liability where the duties of a licensee were breached and liability was for the consequences in terms of damage or injury. The blight damage was recoverable as it was the radioactive properties which had lead to it. The defendant was responsible for the physical defect or damage out of which the loss in value arose.

This view was held to be correct by the Court of Appeal who also stated that such physical damage to property contemplated by s7 (1 a) is not limited to particular types of damages but would occur provided that there was some alteration in the physical characteristics of the property caused by radioactive properties which rendered it less

²⁶ Section 7 of the Nuclear Installations Act imposes a duty on the licensees of nuclear installations to prevent occurrences at the site causing property damage or injury to any person by the release of any substance having radioactive, toxic, explosive or other hazardous properties.

useful or less valuable. The Court held that although the consequence was purely economic -loss in value of the estate-, the damage itself was physical²⁷.

This particular feature of the damage made the difference between this case and the *Merlin v British Nuclear Fuels plc* [1990], in *Merlin* the plaintiff sought compensation from the defendant for plutonium contamination of his property. However, the court found that the mere presence of radionuclides had not given rise to physical damage. Despite the loss in value of the house, compensation was not recoverable, since the blight damage was not physical and therefore falls outside the provisions of the Nuclear Installations Act 1965²⁸.

The Court in *Blue Circle* distinguished the decision in *Merlin* from the present case by linking the economic loss in the present case to the actual physical harm caused by the radioactive contamination. In *Merlin* there was no physical harm and the nature of the loss was purely economic and non-actionable. The *Blue Circle* site had, in fact, suffered physical harm and, therefore, the loss was actionable.

4. Torts with potential application in environmental context:

As for common law actionable torts concerned with environmental protection there are generally nuisance, both private and public, trespass, the rule in *Ryland's v. Fletcher*²⁹ and negligence³⁰. Below is a review of these tort law norms and its environmental ramifications in the UK, bearing in mind that with the exception of negligence these torts have their effects only as long as property rights or interests in land are concerned.

4.1. Nuisance in environmental context:

Nuisance is one of the most useful common law torts available in environmental cases. The deepest doctrinal roots of modern environmental law are found in principles of nuisance; therefore, it has been said that: "nuisance theory is the common law backbone of modern environmental law"³¹.

²⁷ *Blue Circle Industries plc v Ministry of Defence* 1997 Env LR 347

²⁸ *Merlin v British Nuclear Fuels plc* [1990] 2 QB 557

²⁹ *Ryland's v. Fletcher* (1866) LR 1 Exch 265

³⁰ Cane, P "Using tort law to enforce environmental regulations", (2002), 14 (3) *Washburn Law Journal*, p 438, also available online at <http://washburnlaw.edu/wlj/41-3/articles/cane.pdf>

³¹ Quinn, J "Not- so -strict liability: A foreseeability test for *Rylands v. Fletcher* and other lessons from *Cambridge Water Company- v- Eastern Countries Leather plc* (1994)", (2000), 24, *Harvard Environmental Law Review*, p 287

Nuisance can potentially provide a remedy for a variety of environmental concerns such as smoke, smells, and noise. However, nuisance is traditionally concerned with the protection of land; it protects the quiet use or enjoyment of the land. Therefore, every person is bound to use his land so as not to injure other people³².

The fact that nuisance is concerned only with the protection of private property adversely affects the role of nuisance as a means of preventing and remedying environmental damage. This argument received a great impulsion in *Hunter v. Canary Wharf Ltd* (1997) where the House of Lords confined the right to sue in nuisance to those who have a proprietary right or exclusive possession³³.

Therefore, nuisance plays only a limited role in the protection of the environment giving the fact that the steady growth in public awareness of environmental protection has resulted in the implementation of a number of statutes that impose a regulatory regime which renders the common law very much a secondary means of environmental protection³⁴. This argument is now supported by Lord Goff's speech in the leading environmental pollution case namely *Cambridge Water Company Ltd v Eastern Counties Leather plc* 1994 when he said: " ..So much well-informed and carefully structured legislation is now being put in place to effect environmental protection...there is less need for the courts to develop common law principles to achieve the same end, and indeed it may be undesirable that they should do so"³⁵.

However, this does not mean that nuisance is completely redundant in environmental context so long as statutory environmental system concerning environmental protection is not comprehensive³⁶.

4.2. Liability in nuisance:

Traditionally, the English law of nuisance requires neither a deliberate act nor negligence on the part of the defendant. To this extent, liability is, in theory, strict³⁷.

³² *St Helen's smelting v Tipping* (1865) 11 HL Cas 642

³³ *Hunter v Canary Wharf Ltd* [1997] 2 All ER 426

³⁴ Markesinis, B & Deakin, S "Tort Law" Fourth edition, Oxford University Press, 1998. P 457, also Murphy, J "Noxious emissions and common law: Tort in the shadow of regulation". In (Environmental protection and the common law" edited by Lowry, J & Edmunds, R 2000, Hart publishing, p52-76

³⁵ *Cambridge Water Company Ltd v Eastern Counties Leather plc* [1994] 2 AC 264

³⁶ Murphy, J "Noxious emissions and common law: Tort in the shadow of regulation". In (Environmental protection and the common law" edited by Lowry, J & Edmunds, R 2000, Hart publishing, p 74

However, the law calls for a reasonable degree of tolerance among neighbours³⁸, that Lord Goff called it the law of give and take when he said “although liability for nuisance has generally been regarded as strict,... even so that liability has been kept under control by the principle of reasonable user - the principle of give and take as between neighbouring occupiers of land, under which “those acts necessary for the common and ordinary use and occupation of land and houses may be done, if conveniently done, without subjecting those who do them to an action”³⁹.

Therefore, nuisance will not address trivial inconveniences or interference⁴⁰, only a substantial interference with the use or enjoyment of land can give the plaintiff a right to bring an action based on nuisance, law gives no special protection to abnormally sensitive persons⁴¹. Interference must be substantial and not merely fanciful, trivial or things done in the course of ordinary use of property and those necessary to everyday life⁴².

Although liability under nuisance is strict, the defendant will be only liable for the foreseeable damage resulted from his activity; as Lord Goff put it: “the development of the law of negligence in the past sixty years points strongly towards a requirement that such foreseeability should be a prerequisite of liability in damages for nuisance, as it is of liability in negligence”⁴³. However, if the user was reasonable then, there is nothing which at law can be considered a nuisance⁴⁴.

Nuisance is divided into private nuisances and public nuisances. Private nuisance covers unreasonable interference with an owner occupier’s use or enjoyment of his

³⁷ Morrow. K “Nuisance and environmental protection”, in “Environmental protection and the common law”, edited by Lowry.J & Edmunds.R 2000, Hart publishing, P153

³⁸ Penner.J “Nuisance, the Morality of Neighbourliness, and Environmental Protection”, In Environmental Protection and the Common Law”, edited by Lowry.J & Edmunds.R 2000.Hart publishing, p 27- 48, See *Kennaway v Thompson* [1981] QB 88 at 94

³⁹ *Cambridge Water Company- v- Eastern Countries Leather plc* (1994) 1 All ER 53(HL) & *Bamford v. Turnley* (1860) 3 B & S 62

⁴⁰ See *St Helens Smelting Co. v Tipping* (1865) 11 HL Cas 642. in which the House of Lords stressed that trifling inconveniences are not grounds for nuisance it ruled that “In a county where great works have been created and carried on, and are the means of developing the national wealth, you must not stand on extreme rights and allow a person to say, I will bring an action against you for this and that, and so on. Business could not go on if that were so. Everything must be looked at from a reasonable point of view; therefore the law does not regard trifling and small inconveniences, but only regards sensible inconveniences, injuries which sensibly diminish the comfort, enjoyment or value of the property which is affected”, see also *Walter v Selfe* [1851] 4 De G & Sm 315

⁴¹ *Robinson v Kilvert* (1889) 41 CH. D 88

⁴² *Baxter v Camden London Borough Council* (No 2) [2000] Env LR 112

⁴³ *Cambridge Water Company- v- Eastern Countries Leather plc* (1994) 1 All ER 53(HL)

⁴⁴ *Sanders Clark v Grosevevor Mansions co Ltd* 1900 2 CH 373, see also *Stern v Prentiss* [1919] 1 KB 394

land. Whereas Public nuisance is primarily a crime which protects certain public rights, in environmental context nuisance may include smells⁴⁵, sewage⁴⁶, dust odours or noise emitted from industrial⁴⁷, commercial or domestic premises, which cause unreasonable interference with the use or enjoyment of property.

4.3. Private nuisance:

Private nuisance is the traditional “environmental tort”⁴⁸, and it can arise when a person’s activities adversely affects, damages or unreasonably interferes with the use or enjoyment of another person’s land or property. Examples relevant to industry might be where emissions, smells⁴⁹, noise or spillages from or on the land of a factory unreasonably interfere with the use of other land.

“Private nuisance can be defined as unlawful interference with an occupier’s use or enjoyment of land or of some right over, or in connection with it”⁵⁰. It is an activity or state of affairs that unreasonably and substantially interferes with the use or enjoyment of land or rights over land.

Private nuisance seeks to protect occupiers of land from damage to the land, buildings, or vegetation from unreasonable interference with their comfort or convenience by excessive noise, dust, fumes, smells and all other effects that may affects the use and enjoyment of property and reduces its amenity value⁵¹. But nuisance can not be used to claim compensation as regard to personal injuries; it has been said that “The essence of nuisance was that, it was a tort of land, or to be more accurate it was a tort directed against the plaintiff’s enjoyment of right over land”⁵². This opinion has been supported by Lord Hoffman in *Hunter v Canary Wharf* (1997)⁵³.

⁴⁵ *Bone v Searle* [1975] 1 WLR 797

⁴⁶ *Pride of Derby and Derbyshire Angling v. British Celanese Ltd. and others* (1952) CH 149

⁴⁷ *Bellew v Cement Ltd* [1948] IR 61, *Gillingham Borough Council v Medway (Chatham) Dock Co. Ltd* [1992] 3 WLR 449

⁴⁸ Bienemann. C. “Civil liability for environmental pollution – different regimes and different perspectives”, University of Aberdeen, 1996, P 92

⁴⁹ *Wheeler v. JJ Saunders Ltd* [1995] 3 WLR 466

⁵⁰ Gervin. W & Lever. J & Larouche. P “Tort law”. Hart publishing Oxford & Portland, Oregon 2000. P 170. And P. Winfield “Nuisance as a Tort”. (1931), 4, C. L. J, p190.

⁵¹ Townsend. M & Smith. C “3G Roll- out: the challenges ahead”, (2000), 10 (1), *Journal of Environmental Liability* p16. Bell, S & McGillivray, D “Environmental law” 5th edition BlackStone Press Limited, 2000, at 258

⁵² Gearty. C “The place of Private Nuisance in a modern Law of Torts” (1989), 7, C. L. J, p 214. See as well Newark. F. H “The Boundaries of Nuisance” (1949), *L. Q. Re.p v* (65) 480.

⁵³ Lord Lloyd in *Hunter v Canary Wharf* 1997 stated that “private nuisances are of three kinds. They are (1) nuisance by encroachment on a neighbours land; (2) nuisance by direct physical injury to a neighbours land; and (3) nuisance by interference with neighbours quiet enjoyment of his land”.

4.3.1. Reasonableness test:

As mentioned above, the starting point to discuss liability under private nuisance is to apply the reasonable test which implies that, generally, liability in nuisance requires some degree of foreseeability or fault⁵⁴.

The interference in nuisance will be considered by reference to all the circumstances of the particular case and not in an abstract way⁵⁵. In determining what amount to unreasonable interference the courts refer to some factors as will be seen below.

4.3.1.1. The Locality doctrine under nuisance law

While determining whether defendant's act constitute a nuisance or not, the court will consider the locality in which the act took place; the character of such locality is a determining factor in this issue, therefore, what might be a nuisance in an industrial area, might not necessarily be considered nuisance in a residential locality. This was stated in *Sturges v Bridgman (1879)* when the court held that: "What would be a nuisance in Belgravia Square would not necessarily be so in Bermondsey"⁵⁶. The importance of locality test in environmental cases is that, where the pollution occurred in a designated industrial area; then the possibility of succeeding in a nuisance action is relatively low and this particular situation was criticised as being paradoxical; as the protection will be of minimal nature for those who severely suffer from pollution⁵⁷. However, and even in heavily industrialised areas, plaintiff may successfully pursue a nuisance action⁵⁸.

Locality doctrine has been examined in *St. Helen's smelting v. Tipping 1865*, the House of Lords ruled that "In a county where great works have been created and carried on, you must not stand on extreme rights and allow a person to say, I will bring an action against you for this and that, and so on. Business could not go on if that were so"⁵⁹. The same point has been referred to later in *Cambridge Water Company v Eastern Counties Leather plc (1994)* to decide whether the defendant was

⁵⁴ Betlem. G & Faure. M "Environmental toxic torts in Europe: some trends in recovery of soil clean-up costs and damages for personal injury in the Netherlands, Belgium. England and Germany", (1998), 10, *Georgetown International Environmental Law Review*, p 855

⁵⁵ *Allen v Gulf Refining [1980] QB 156 at 179*

⁵⁶ *Sturges v Bridgman (1879) 11 Ch D 852*

⁵⁷ McLaren, J "Nuisance Actions and the Environmental Battle", (1972) 10, *Osgoode Hall Law Journal*, p 534, also Alder. J & Wilkinson. D. "Environmental law and ethics" Macmillan Press Ltd, 1999. p 233

⁵⁸ *Rushmer v Polsue and Alfieri Ltd [1906] 1 Ch 234*

⁵⁹ *St. Helen's smelting v. Tipping (1965) 11 HLC 642.*

a natural user or not in relation with the storage of chemicals that caused the harm to the plaintiff's aquifer where Lord Goff said: "It follows from this that what amounts to nuisance in one place is not necessarily a nuisance in another depends on the socio-economic character of the area in which the environmentally harming activity took place"⁶⁰.

One more important point regarding the locality doctrine is that, the character of the neighbourhood may vary over time during the natural human development process, moreover, this change in the neighbourhood character might be the result of a planning permission or a regulatory decision issued by the local authority as has been the case in *Gillingham Borough Council v Medway (Chatham) Dock Co Ltd* [1993], when it was held that "where planning consent is given for a development or change of use, the question of nuisance will thereafter fall to be decided by reference to a neighbourhood with that development or use and not as it was previously"⁶¹. The judge went on to hold that, "although a planning consent could not authorise a nuisance, it could change the character of the neighbourhood by which the standard of reasonable user fell to be judged".

This approach -although approved in *Gillingham* facts- was not accepted in *Wheeler v. JJ Saunders Ltd* [1995], where the court ruled that: "[t]he court should be slow to acquiesce in the extinction of private rights without compensation as a result of administrative decisions which cannot be appealed and are difficult to challenge"⁶². This was because in *Wheeler* case, the defendants had merely been a permission to increase the level of an existing activity and unlike *Gillingham*; the change involved an isolated incident that did not change the character of the area.

4.3.1.2. Other determining factors in private nuisance⁶³:

Besides the locality doctrine, there are some other determining factors in deciding the issue of reasonableness; below is a brief discussion of these factors for these factors could have significance where environmental damage is in question.

⁶⁰ *Cambridge Water Company v Eastern Countries Leather plc* (1994) 1 All ER 53 HL

⁶¹ *Gillingham Borough Council v Medway (Chatham) Dock Co Ltd* [1993] QB 343, [1992] 3 All ER 923, [1992] 3 WLR 449

⁶² *Wheeler v. JJ Saunders Ltd* [1995] 3 WLR 466,

⁶³ Other considerations are ranging from, intention of the defendant, *Hollywood Silver Fox Farm v Emmett* [1936] 2 KB 468, and the defendant's use of the best practicable means to minimise the nuisance, *Read v Lyons and Co Ltd* [1947] AC 156.

a. Duration of the nuisance:

As a general rule nuisance need to be appreciable and last for a reasonable period in order to be actionable⁶⁴. However, nuisance dose not always need to be continuous or constant, even a short term nuisance is actionable⁶⁵, especially if the defendant is not carrying out his conduct in a reasonable and proper manner⁶⁶. This last point has importance in environmental damage cases since environmental damage may be the result of a separate and temporarily activity such as an accident which may result in fumes emanating or fire damage the plaintiff land or property.

b. Sensitivity

The core of this theme is that, “a man cannot increase the liabilities of his neighbour by applying his own abnormal sensitivity or his property”⁶⁷; therefore the court will judge the reasonableness of the defendant activity according to an objective standard or the standard of the reasonable man, accordingly, in *Robinson v Kilvert (1889)* it has been ruled that an activity is not rendered unreasonable by virtue of thee hypersensitivity of the plaintiff, the court ruled that: “A man who carries on an exceptionally delicate trade cannot complain because it is injured by his neighbour doing something which would not injure anything but an exceptionally delicate trade”⁶⁸. Not only the hypersensitivity of the plaintiff is important, but also the sensitivity of his land or land use. In environmental damage cases, this factor may hurdle the plaintiff’s task if he is an organic farmer seeks to protect his own crops from contamination of nearby Genetically Modified farming, the court may consider his land use hypersensitive and therefore deny the merit of his action⁶⁹.

c. Public benefit

Courts may compare between public interest and individual rights in order to decide the existence of nuisance, a reasonable activity which is carried out to the benefit of the general public may not be considered nuisance even though it may interferes with individuals private properties.

⁶⁴ *Cunard v Antifyre Ltd [1933] 1 KB 551*, see also *Harrison v Southwark and Vauxhall Water Co [1891] 2 Ch 409*, and *Bolton v Stone [1951] AC 850*

⁶⁵ *Crown River Curises Ltd v Kimbolton Firworks Ltd [1996]*

⁶⁶ *De Keyser’s Royal Hotel Ltd v Spicer Bros Ltd [1941] 30 TLR 257*

⁶⁷ *Eastern and South African Telegraph Co Ltd v Cape Town Co Ltd [1902] AC 381*

⁶⁸ *Robinson v Kilvert (1889) 41 CH. D 88*

⁶⁹ *R v Secretary of State for the Environment ex parte Watson [1999] Env. L. R. 310*

Although this argument has a merit in environmental damage cases where the damage to individuals may be the result of a useful activity which bring benefits to the community as a whole, but traditionally, English courts have been reluctant to extinguish private rights in the public interest⁷⁰, In *Bamford v. Turnley* 1860 the court had the view that, “the law is a bad one which, for the public benefit, inflict loss on an individual without compensation”⁷¹, therefore, in *Shelfer v City of London Electric Lighting Company* [1895], the court granted an injunction despite the defendant’s argument that its activities are for the benefit of the public⁷².

However, in *Transco plc v Stockport Metropolitan Borough Council* [2003], the House of Lords made a comment that courts may take this consideration into account while determining the reasonableness of the defendant’s activity, their Lordship put it this way, “It is understandable that any court might be inclined to deal more strictly with a defendant who has profited from a dangerous activity conducted on his own land, and less strictly with persons conducting similar activities for the general public good”⁷³.

It’s worth mentioning however that, the European Court of Justice tried to strike the balance between public interests and individual rights. In *Powell and Rayner v United Kingdom* (1990) -a case brought by a nearby resident against the UK their property is situated about one and a third miles west of, and in a direct line with, Heathrow’s northern runway. It is regularly overflowed during the day and to a limited extent at night, the plaintiff claimed that they sustained a terrible noise because of the intensive flights in Heathrow airport- The court ruled that: “While admitting that noise sustained by the plaintiffs but, Heathrow airport is as so important to the UK economy that the interference in local resident’s right of private life and their home by noise was not disproportionate”. Therefore, it maintained the fair balance required to be struck under Article 8 and ruled that there is no violation committed against article 8 of the European Convention on Human Rights, which states “1. Everyone has the right to respect for his private ... life and his home.... 2. There shall be no interference by a public authority with the exercise of this right except such as is in accordance

⁷⁰ Lunney. Mark & Oliphant. Ken, “Tort Law: Text and Materials”, 2nd edition, 2003, Oxford University Press, at p 593. See *Kennaway v Thompson* [1981] QB 88

⁷¹ *Bamford v. Turnley* (1860) 3 B & S 62

⁷² *Shelfer v City of London Electric Lighting Company* [1895] 1 Ch 287

⁷³ *Transco plc v Stockport Metropolitan Borough Council* [2003] UKHL 61

with the law and is necessary in a democratic society in the interests of ... the economic well-being of the country”⁷⁴.

This view was expressed as a dissenting opinion in *Hatton and Others v. UK* 2001 where it has been said that: “Modern life is beset with inconveniences. It is an inevitable incident of our changing world that land use plans change and that those changes have an impact on the lives of individuals. From time to time motorways are extended, roads are re-routed or public buildings are erected near private property. Those who are directly affected by such developments are naturally most likely to oppose them. So it is with night flights. But the mere fact that one’s private life is interfered with by such developments is not enough to attract the protection of Article 8, therefore it has not been established that there was a significant interference with the applicants’ right to private life”⁷⁵. Recently, the European Court of Human Rights in 2003 upheld this view in *Hatton v United Kingdom* 2003⁷⁶.

4.4. Public nuisance:

Public nuisance is an activity or state of affairs that interferes with the health, safety, comfort, or property of the public at large. Public nuisance is a crime. At common law it includes such activities as obstruction of the highway⁷⁷, carrying on an offensive trade, and selling food unfit for human consumption. In *Attorney General V PYA Quarries Ltd* 1957 the court of appeal ruled that “any nuisance is public which materially affects the reasonable comfort and convenience of life of Her Majesty’s subjects”⁷⁸.

Public nuisance is similar to private nuisance except that the defendant’s act or omission must affect a significant section of the public. An example of public nuisance might be pollution of a drinking water supply from a contaminated site, obstruction of the highway or interference with the public right of navigation. Moreover a person can not sue for public nuisance unless he prove that he/she suffers

⁷⁴ Powell and Rayner complained that air noise from Heathrow interfered unreasonably with the use of their properties and that the absence of adequate remedies under UK legislation constituted a breach of their rights under Article 8. The European Convention on Human Rights rejected that claim, holding that the importance of Heathrow to the UK economy justified the UK’s policy in relation to the Airport. That point, together with the noise abatement measures in UK legislation, meant that there had been no breach of Article 8. See *Powell and Rayner v United Kingdom* (1990)

⁷⁵ *Hatton and Others v. the United Kingdom* 2001

⁷⁶ See Chapter 2, *Hatton and Others v. the United Kingdom* [2004] 1 All ER 135

⁷⁷ *Hubbard v Pitt* [1976] QB 142, *Attorney General v Gastonia Coaches* [1977] RTR 219

⁷⁸ *Attorney-General v PYA Quarries Ltd.* [1957] 2 QB 169

special damage as a result of interference with a public right⁷⁹.

This common law action is of limited use in environmental cases because of legal and procedural hurdles, which is difficult to overcome. When a nuisance affects many people, the common law denies any person the right to sue unless that person has suffered damages greater than or substantially different from those of their surrounding neighbours. The courts will say that such a person does not have “standing” to sue. Therefore, a potential plaintiff, who cannot establish that he or she has suffered special harm which should be over and above that suffered by others, cannot be awarded compensation in public nuisance.⁸⁰

Lord Denning L.J formulated a test to determine whether a certain activity constitute a public nuisance or it is merely a private one by saying, “I prefer to look to the reason of the thing and to say that a public nuisance is a nuisance which is so widespread in its range or so indiscriminate in its effect that it would not be reasonable to expect one person to take proceedings on his won responsibility to put a stop to it. But that it should be taken on the responsibility of the community at large”⁸¹. This distinction between public and private nuisance can be of significant importance in an environmental context where the damage affects a group of people or the community at large, or even when the damage affect the environment pre se, but this last potential needs firstly to admit that a clean and un polluted environment is a legitimate interest for individuals and society⁸². There is one more advantage of bringing an action in public nuisance, personal injuries are recoverable in public nuisance whereas private nuisance deals with damage caused to property rather than the person himself⁸³.

It should be noted that, although a nuisance may constitute a public nuisance, anyone whose enjoyment of land is affected can also bring a private action provided that the plaintiff must show damage over and above that suffered by the public at large⁸⁴. Thus nuisances can be both public and private. In *Halsey v Esso Petroleum* (1961)

⁷⁹ *Tate & Lyle Food & Distribution Ltd v Greater London Council* [1983] 2 AC 509

⁸⁰ Hughes. D “Environmental law”, Butterworths.3th edition, 1996, P 39. for examples of special damage compensable in public nuisance see generally, *Tate & Lyle Indus. Ltd v Greater London Council* [1983] 2 AC 509, *Gravesend Borough Council v British Ry. Bd* [1987] Ch 379, *Blagrove v Bristol Waterworks Co* [1856] 156 Eng Rep 1245, *Medcalf v R. Strawbridge Ltd* [1937] 2 KB 102, *Lewys v Burnett & Dunbar* [1945] 2 All E.R. 555, *Jacobs v London County Council* [1950] AC 361

⁸¹ *Attorney General v PYA Quarries Ltd* 1957 2 QB 169

⁸² Wilde. M “Extending the role of tort as a means of environmental protection: An investigation of recent developments in the law of tort and the European Union”, University of Brunel.1999. P 34

⁸³ Day.M & Pugh.C “Pollution & Personal injury: Toxic torts”, 1995, Cameron May Ltd. P 161, See *Malone v Laskey* [1907] 2 KB 141

⁸⁴ *Rose v Miles* (1815) 4 M & S 101. *Tate & Lyle Food & Distribution Ltd v Greater London Council* [1983] 2 AC 509

claimant lived in a residential estate adjoining an oil distribution depot which was one of a number of units in an industrial estate. There were a series of nuisances: day and night noise from pumps and boilers causing windows to vibrate; noise from Lorries passing to and from the depot; noxious fumes; and acid smuts landing on washing and cars. The claimant brought an action in respect of all nuisances and it was held that, “the noise of lorries passing to and from the depot and the smell was sufficient in degree to amount to a private nuisance besides that, the damage relating to the highway (the cars parked on it and the lorries passing along it) amounted to a public nuisance”⁸⁵.

4.5. Statutory nuisance:

This type of nuisance represents a link between common law actions applicable in relation to environmental damage and the statutory mechanisms that are more commonly used, mainly criminal law offences. The main aim of statutory nuisance provisions is to provide a rapid and easy remedy to abate nuisance where common law actions would be too slow or expensive to address the issue⁸⁶. However, statutory nuisance is basically criminal offences and is not necessarily a tort. Statutory nuisances are created by provisions dealing with noise, public health, and the control of pollution⁸⁷.

5. Trespass to land:

Trespass involves an intentional interference with the property right of an owner or occupier of land. A trespass would occur when one neighbour throws their trash near his neighbour’s wall that it rolled up against the wall⁸⁸. It is “the intentional entering onto another person’s land without lawful permission or remaining on the land after permission has been withdrawn”⁸⁹.

Trespass can be directed against plaintiff’s person, land, or his goods⁹⁰. In *Entick v Carrington* (1765) the court ruled that “The great end for which men entered society

⁸⁵ *Halsey v Esso Petroleum* [1961] 1 WLR 683

⁸⁶ The Third Report of the Royal Commission on the Pollution of Rivers in 1867

⁸⁷ See part three of the 1990 Environmental Protection Act which contained a list of offences which are capable of constituting a statutory nuisance. They all represent a breach of statutory duty, which is an independent tort separate and distinct from the tort of negligence, trespass, *Ryland’s v. Fletcher*, or even private and public nuisance.

⁸⁸ *Gregory v Piper* [1829] 9 B. & C 591

⁸⁹ *Markesinis, B. & Deakin, S. “Tort law”, 4th edition, Clarendon press. Oxford 1999, at p 413*

⁹⁰ *Kidner. R “ Casebook on torts”. 6th edition.2000. Blackstone Press Ltd. P 1.*

was to secure their property. That right is preserved sacred and incommunicable in all instances, by the laws of England, every invasion of private property, be it ever so minute, is a trespass. No man can set foot upon my ground without my license, but he is liable to an action"⁹¹. However, trespass applies not only to the unwelcome presence of people on other's property but also to the direct and intentional deposit of foreign substances onto land⁹².

Trespass is an intentional interference with plaintiff's land; therefore, the court will judge the defendant's conduct to examine his state of mind before deciding the case⁹³. Moreover, trespass involves direct interference with another person's land without lawful excuse⁹⁴. In relation to contaminated land, trespass may be a possible cause of action where there has been an unjustifiable intrusion by one person upon the land in the possession of another. However, in environmental damage cases, trespass has been interpreted narrowly. Consequently, for liability to result under trespass there must be a causal link between the directness of the act and the inevitability of its consequences.

In *Esso Petroleum Co Ltd v Southport Corporation (1956)*, an oil tanker was grounded and discharged much of its cargo of oil to lighten the ship. This was then carried on to Southport's beach by the tides and the wind. The House of Lords considered this could not be trespass, since there was no inevitability about the oil being deposited onto the shore as it depended upon the action of the tide and wind.

Although the requirement of directness as expressed in *Esso Petroleum Co Ltd v Southport Corporation (1956)* weakened the usefulness of trespass in cases of air-born pollution unless the pollutant substance is directly deposited over the plaintiff's property; trespass remains useful in water pollution cases where it is somehow easier to prove the directness of trespass. And it could be used in the case of air-born pollution if it involves poisonous substances directly entering the property of the plaintiff.

It is to be mentioned however, that trespass is an ancient tort, which has been designed originally to deal with direct physical intrusions to land; therefore, it is not

⁹¹ *Entick v Carrington (1765) 2 Wils 275.*

⁹² Margaret, B. & Murphy, J. "The law of tort". Butterworths. 1999. P 77.

⁹³ *McDonald v Associated Fuels Ltd [1954] 3 DLR 775*

⁹⁴ Bell, S. & McGillivray, D "Environmental Law: The law and policy relating to the protection of the environment". 5th edition. Blackstone Press Ltd. P267.

flexible enough as a means of environmental protection⁹⁵; because of the requirement for “direct” interference. For example, pesticides carried by the wind, or oil flowing upon tidal water onto the plaintiff’s property would likely not satisfy this legal requirement of “direct deposit”. However, the courts have taken account of scientific development; therefore, trespass may be committed by intangible matters such as gas which deprived the plaintiff of facilities⁹⁶, besides the fact that where the interference arises from an exercise of the defendant’s rights over his own property, the action should be brought in private nuisance and not in trespass. However, trespass can be a useful means to deal with cases of dumping or road and rail spillage⁹⁷.

The main advantage in bringing a case in trespass is the fact that trespass is actionable *per se*⁹⁸; Being actionable *per se*, is due to the fact that trespass violated a landholder’s right to exclude others from his premises, so that, the landholder could recover at least nominal damages even in the absence of proof of any other injury, by contrast recovery under nuisance, however, traditionally required proof of actual and substantial injury. The plaintiff need not to prove damage sustained to be entitled to compensation⁹⁹. However, this does not relieve the plaintiff from the burden to prove the causal link between the defendant trespass action and his loss, and the proprietary right or possession of the land to be entitled to sue in trespass¹⁰⁰.

6. The Rule in Ryland’s v. Fletcher:

This rule is considered by the House of Lords to be an extension of the tort of private nuisance. However, the rule in *Ryland’s v Fletcher* has distinct features, and it has a potential application in environmental damage cases.

The best wording to explain the core of this rule is to cite the dictum of his Lordship Blackburn J who first ruled it by saying: “The true rule of law is that, the person who

⁹⁵ Alder. J & Wilkinson. D. “Environmental law and ethics”, Macmillian Publishing, 1999. p235

⁹⁶ *McDonald v. Associated Fuels* [1954] 3 D.L.R. 775

⁹⁷ “Environmental liability in the UK” A paper published by Freshfields Bruchaus Deringer, March 2002.

⁹⁸ *Ashby v White 2 Ld, Raym, 938, 953 (1703)*

⁹⁹ Bell. S. “Environmental Law: The law and policy relating to the protection of the environment”. 4th edition. Blackstone Press Ltd. P197. See also Kidner. R “Casebook on torts”. 6th edition, 2000 Blackstone Press Ltd, P 1 See also Cane. P, “Using Tort Law to Enforce Environmental Regulations”, (2002),41, *Washburn Law journal*, p 441 also available online at <http://washburnlaw.edu/wlj/41-3/articles/cane.pdf>.

¹⁰⁰ Bienemann. C. “Civil Liability for Environmental Pollution – different Regimes and different Perspectives”, University of Aberdeen, 1996, P 98

for his own purposes brings on his land and collects and keeps there anything likely to do mischief if it escapes, must keep it in at his peril, and, if he does not do so, is prima facie answerable for all the damage which is the natural consequence of its escape”¹⁰¹. This contains a principle upon which action can be taken in relation to isolated escapes which may have environmental ramifications. Although the House of Lords adopted this rule, but their Lordships introduced an element of discretion and restricted the rule by requiring the defendant to be a “non-natural user”, in order to be held liable¹⁰².

A defendant under this rule may be held strictly liable for all damages resulting from the escape of the thing he brought on his land, even though the utmost care was taken to prevent its escape. It is not necessary for the plaintiff to prove carelessness on the part of the defendant but only that their actions caused the damage. The novelty of the decision was that, for the first time the court decided that an isolated escape is actionable between adjacent occupiers.

6.1. The merit of the rule in the English Law:

The rule in *Ryland’s v Fletcher* has been recently revisited by the House of Lords in *Transco plc v Stockport Metropolitan Borough Council [2003]*, where their Lordships have been invited by the SMBC to sound the death knell for the rule in England; on the ground that it is obsolete and has rather a little practical purpose; its application is unacceptably vague and that strict liability on social grounds is better left to the Parliament¹⁰³. The House of Lords although admitted the strength of these arguments, but their Lordships do not consider it to be consistent with the judicial function of the House of Lords to abolish the rule. Saying that “it would be too radical step to take”, their Lordships noted that the rule has been part of the English law for nearly 150 years and despite a searching examination by Lord Goff in the *Cambridge Water* case [1994]¹⁰⁴, there was no suggestion in his speech that it could or should be abolished. Therefore, the rule in *Ryland’s v Fletcher* although is a sub-species of nuisance, it remains part of the law of England. Their Lordships emphasise the non-natural user

¹⁰¹ *Ryland’s v. Fletcher* (1866) LR 1 Exch 265

¹⁰² Pugh. C & Day. M “Toxic Torts”, Cameron May Ltd. 1992, p 112

¹⁰³ The High Court of Australia in *Burnie Port Authority v General Jones Pty Ltd* (1994) 120 ALR 42 (*Burnie*), Ruled that: “the rule in *Ryland’s v Fletcher*, with all its difficulties, uncertainties, qualifications and exceptions, should now be seen, for the purposes of the common law of this country, as absorbed by the principles of ordinary negligence”.

¹⁰⁴ [1994] 2 AC 264, 308

requirement and interpreted it in rather a conservative approach; as they used a vague and bombastic words to describe the non-natural use. Lord Bingham stated that “an occupier of land who can show that another occupier of land has brought or kept on his land an exceptionally dangerous or mischievous thing in extraordinary or unusual circumstances is in my opinion entitled to recover compensation from that occupier for any damage caused to his property interest by the escape of that thing, subject to the defences of Act of God or of a stranger without the need to prove negligence”¹⁰⁵. As can be noted the exceptionally dangerous or mischievous thing in extraordinary or unusual circumstances does not give the application of the rule any further clarity, but more ambiguity and discretion since this complex test could logically be different; because a use may be extraordinary and unusual at one time or in one place but not so at another time or in another place.

There are many difficulties which affect the applicability of the rule. Firstly, the vagueness of the non-natural user test. Secondly, the requirement of foreseeability of the damage required under the rule in *Ryland's v Fletcher* as indicated in Cambridge case. Thirdly, the right to sue under the rule is restricted to those who must have a sufficient “property interest” in land. Fourthly, liability under the rule was confined to property damage and did not apply to personal injury claims. Finally, many defences are available under the rule and the general requirement of causation. All these limitations severely minimises the possibility of bringing a successful action based on the rule in *Ryland's v Fletcher*. This possibility is rather more limited where environmental damage is in question. The only advantage of the rule in such environmental cases could be related to the chemical industries which present special hazard to the neighbourhood and therefore, might fulfil the non-natural user test¹⁰⁶. However, there is along way before liability requirements under the rule can be satisfied.

6.2. Liability under the rule in Ryland's v Fletcher:

Liability under the rule of *Ryland's v. Fletcher* is strict liability in the since that, the rule provides that a defendant will be liable without proof of fault in his part and regardless of his precaution to avoid causing harm. But In order to apply the rule in *Ryland's v. Fletcher* there should be some requirements as follows:

¹⁰⁵ *Transco plc v Stockport Metropolitan Borough Council* [2003] UKHL 61

¹⁰⁶ *Cambridge Water Company- v- Eastern Countries Leather plc* (1994) 1 All ER 53 HL

- 1- That the defendant brought “accumulate” something “material” in or onto his land for his own purpose; Thus the rule will not be applied to things occurring naturally upon the land¹⁰⁷, the defendants in *Ryland’s v Fletcher* brought water onto the land, and this particular requirement may be of significant importance in environmental cases, especially for those dealing with landfills or dangerous substances. However, in *Transco plc v Stockport Metropolitan Borough Council* [2003], the House of Lords while admitting that “water in quantity is almost always capable of causing damage if it escapes, but they considered that the piping of a water supply from the mains to the storage tanks in the block was a routine function which would not have struck anyone as raising any special hazard”¹⁰⁸.
- 2- That the defendant made a “non-natural use” of his land, it’s to be noted here that, in *Cambridge Water Company v Eastern Counties Leather plc* 1994 the meaning of non-natural use of land was given a broader interpretation. It was held that the storage of chemicals on the land constituted a non-natural use of land and the defendant was therefore potentially liable for reasonably foreseeable damage.

In *Cambridge Water Company*, Lord Goff reaffirmed the principle laid down by the Privy council which has been formulated by Lord Moulton in *Rickards v Lothian* 1913 which was “It is not every use to which land is put that brings into play that principle. It must be some special use bringing with it increased danger to others, and must not merely be the ordinary use of the land or such a use as is proper for the general benefit of the community”¹⁰⁹. However, Lord Goff noted that non-natural user phrase lacked precision and had been interpreted both widely¹¹⁰, and narrowly; it may be interpreted narrowly to involve activities which are both hazardous and unusual to be carried out on land, or widely to mean any activity which introduces special dangers to the neighbourhood.

Therefore, it is no defense to argue that the use for which the land is put is for the general benefit of the community as long as it produces an increased danger to the

¹⁰⁷ *Smith v Kenrick* [1849] 7 CB 515; 137 ER 205

¹⁰⁸ *Transco plc v Stockport Metropolitan Borough Council* [2003] UKHL 61

¹⁰⁹ *Rickards v Lothian* (1913) AC 263.

¹¹⁰ *In Re Read v. Lyons & Co. Ltd* (1947), it was held that it was “natural” to use land for the manufacture of explosive at time of war.

neighbourhood¹¹¹. In the aftermath of Cambridge Water Company, many industrial activities will now be considered a non-natural user, despite the fact that they may be operated in industrial areas, and bring benefits to the community at large such as, increasing the public wealth, and generate employment¹¹².

However, In *Transco plc v Stockport Metropolitan Borough Council* [2003]¹¹³, the House of Lords, tried to redefine the non-natural user test. Lord Bingham noticed that ordinary user is a preferable test to natural user, making it clear that the rule in *Rylands v Fletcher* is engaged only where the defendant's use is shown to be extraordinary and unusual. Therefore, their Lordships ruled: "Where a local authority constructed a pipe to carry water from a water main to a tower block of flats that was a normal use of land precluding a claim under the rule in the event of an escape of water causing damage to other land"¹¹⁴.

In this regard, their Lordships redefined this 'non-natural user' test by ruling that the defendant's use of his land must be extraordinary and unusual. However, they insisted that such test is not a test to be inflexibly applied; a use might be extraordinary and unusual at one time or in one place but not so at another time or in another place".

Despite the fact that the ruling in *Transco* had concluded the non-natural user test in a right way, it can be fairly said that the attempt made by the House of Lords to redefine the non-natural user requirement was not enough to clarify the vagueness associated with it, this test is still vague. To say that the defendant's use of his land must be extraordinary and unusual in order to trigger liability under the rule in *Ryland's v Fletcher*, means that, the courts left the door opened to more discretion, -if not to more arbitrary judgements- to be made in this regard.

¹¹¹ Hargreaves. P " Pesticide exposure- issues in civil liability within common law jurisdictions". (1997), J. Env. Liab, v (5)3, p 59-67.

¹¹² Day.M & Pugh.C "Pollution & Personal injury: Toxic torts" 1995, Cameron May Ltd. P 165

¹¹³ In this case a council block of flats was supplied with water for the domestic use of the residents. The pipe from the statutory undertaker led to basement tanks in the block for onward distribution of water to the various flats. Without negligence on the part of the council or those on its behalf the pipe failed within the block resulting in a considerable escape of water for the prolonged period the failure remained undetected. The escaped water percolated into and caused the collapse of an embankment supporting Transco's high-pressure gas main and thus leaving the main exposed and unsupported. To avoid the immediate and serious risk that the gas main might crack Transco took 'prompt and effective remedial measures' and sought to recover from the council the agreed cost of taking them.

¹¹⁴ *Transco plc v Stockport Metropolitan Borough Council* [2003] UKHL 61

- 3- The thing was something likely to do mischief if it escaped; such as dangerous substances, or even things which have not a dangerous nature, but it may cause mischief when it escapes such as water¹¹⁵, electricity¹¹⁶, explosions¹¹⁷, oil¹¹⁸, noxious fumes¹¹⁹, and vibrations¹²⁰, notably in *Ryland's v Fletcher* case the defendant brought water onto the land, but it caused a substantial damage to the plaintiff property when water flooded through the mineshafts into the plaintiff's mines on the adjoining property. It is obvious that, the rule in *Ryland's v Fletcher* could be a useful tool in the case of contaminated land or landfill sites if other requirements are established.
- 4- The thing did escape and cause damage, it has been ruled that "The rule in *Ryland's v Fletcher* applied only where there was an escape to another occupier's land¹²¹. The term escape was defined by the House of Lords in *Read v. Lyons & Co. Ltd (1947)*, to mean "escape mean escape from a place where the defendant has occupation of or control over land to a place which is outside his occupation or control". And because the injury sustained happened to the plaintiff in the defendant's land, there did not find the rule in *Ryland's v Fletcher* applicable¹²².

According to the House of Lords, there is now a further requirement that harm of the relevant type must have been "reasonably foreseeable". Lord Goff was of the view that the rule in *Ryland's v. Fletcher* should be regarded as an extension of the law of nuisance; therefore, the defendant should not be held liable for damage that he could not reasonably foresee¹²³. Indeed, this ruling weakened the basis of liability under *Ryland's Fletcher* which was thought to be strict liability. It remains that the rule in *Ryland's Fletcher* is one of strict liability in the sense that, the defendant could be held liable where there was an escape occurring in the course of the non-natural use of land in spite of he has exercised all due care to prevent the escape from occurring.

¹¹⁵ *Ryland's v. Fletcher (1866) LR 1 Exch 265*

¹¹⁶ *National Telephone Co v Baker [1893] 2 Ch 186 14. 222*

¹¹⁷ *Rainham Chemical Works v Belvedere Fish Guano Co [1921] 2 AC 465, also Miles v Forest Rock and Granite Co (Leicestershire) Ltd [1918] 34 TLR 500*

¹¹⁸ *Mulholland & Tedd Ltd v Baker [1939] 3 All ER 253, also Smith v Great Western Railway [1926] 135 LT 112*

¹¹⁹ *West v Bristol Tramways Co [1908] 2 KB14; [1908-10] All ER215*

¹²⁰ *Hoare & Co v McAlpine [1923] 1 Ch 167*

¹²¹ *Transco plc v Stockport Metropolitan Borough Council [2003] UKHL 61*

¹²² *Read v. Lyons & Co. Ltd (1947) A. C. 156*

¹²³ *Cambridge Water Company- v- Eastern Countries Leather plc (1994) 1 All ER 53 HL*

The requirements mentioned above, especially the foreseeability test and the non-natural user test made the future of the rule in *Ryland's v Fletcher* looks uncertain in the cases where environmental damage is in question¹²⁴.

7. The tort of Negligence

Negligence is a common law doctrine which clearly requires fault in the defendant's side in order to impose liability on him. However, liability under negligence has many other requirements which affect its efficiency in environmental damage cases. Negligence is a wide tort with numerous details. Therefore, selective but purposive details will be examined below particularly related to the main features, and the requirements needed in order to establish liability under negligence.

The usefulness of bringing negligence action in environmental litigation is limited¹²⁵. However, theoretically, negligence seems to be the widest and the most efficient norm within common law jurisdictions due to the fact that liability under negligence unlike nuisance -which require the plaintiff to have an interest in land- does not require the plaintiff to have a formal interest in land; therefore, anyone who has suffered damage as a result of negligence can bring an action. Indeed, the fact that negligence does not require the plaintiff to have an interest in land widens the scope of negligence action because of the increased number of potential plaintiffs¹²⁶. But this is not to say that negligence provides the ideal protection for the plaintiff in environmental damage cases; injunctions are not available under negligence¹²⁷, nor economic loss and exemplary damage, which are not recoverable in an action for negligence¹²⁸. However,

¹²⁴ Bell. S. "Environmental Law: The Law and Policy relating to the Protection of the Environment". 4th edition, Blackstone Press Ltd. P202.

¹²⁵ Hughes. D "Environmental Law", Butterworths.3th edition, 1996, p 63, also Bell, S. "Environmental Law: The law and policy relating to the protection of the environment". 4th edition. Blackstone Press Ltd. P198. See also Waite. A & Jewell. T, "Environmental Law in Property Transactions", 2nd edition, Butterworths, 2001, p 174

¹²⁶ Bell. S. "Environmental Law: The Law and Policy relating to the Protection of the Environment". 4th edition, Blackstone Press Ltd. P198.

¹²⁷ Cane. P, "Using Tort Law to enforce Environmental Regulations", (2002), 41 (3), *Washburn Law Journal*, p 441, also available online at <http://washburnlaw.edu/wlj/41-3/articles/cane.pdf>

¹²⁸ Waite. A & Jewell. T "Environmental law in property transactions", 2nd edition, Butterworths, 2001, p 175, See also Howarth. D. "Textbook on tort". Butterworths, 1995. P 595-601.

negligence may be the only way to claim compensation for environmental damage where other common law remedies are not available¹²⁹.

Negligence can be defined as “the omission to do something, which a reasonable man, guided upon those considerations, which ordinarily regulate the conduct of human affairs, would do so, or doing something, which a prudent and reasonable man would not do”¹³⁰. In *Donoghue v Stevenson* 1932 Lord Atkin ruled that “You must take reasonable care to avoid acts or omissions which you can reasonably foresee would be likely to injure your neighbour”¹³¹.

This famous dictum encompasses the principle of proximity which, puts limit to the scope of to whom a person owed a duty of care¹³². This limitation may produce a potential draw-back in cases where defendant’s activity caused harm to the environment per se; the application of proximity test will serve the defendant as he can argue that there was no duty of care owed by him to any potential plaintiff. Courts will apply proximity test to determine whether the plaintiff was a foreseeable victim of the defendant’s conduct or not.

7.1. Liability under negligence:

Liability in negligence arises when damage, which is not too remote, is caused by the defendant who in doing so breach a duty of care owed to the injured party. The scope of liability in negligence is therefore very wide. However, the difficulties in proving that environmental contamination is caused by the fault of a particular person who owed a duty of care, means that negligence is rarely used to provide a cause of action in environmental damage cases¹³³.

This is due to the nature of this tort; the general rules which govern liability in negligence requires the plaintiff to establish that, the defendant owed him a duty of care, that the defendant breached his duty by committing a fault and that he sustained a foreseeable and not too remote injury resulting from this breach. The requirement of

¹²⁹ Bienemann. C. “Civil Liability for Environmental Pollution – Different Regimes and Different Perspectives”, University of Aberdeen.1996. P 87

¹³⁰ *Blythe v Birmingham Waterworks Co* 1856 11 Exch 781 at Page 784

¹³¹ *Donoghue v Stevenson; McAlister v Stevenson* [1932] AC 562 HL

¹³² For example the landowner has a duty to do what is reasonable in the circumstances to prevent hazards emanating from his land causing damage to his neighbour, *Leakey v National Trust* [1981] QB 485

¹³³ Bienemann. C. “Civil Liability for Environmental Pollution – Different Regimes and Different Perspectives” a PhD thesis, University of Aberdeen.1996, P 87

fault caused the main limitation of negligence in environmental damage cases¹³⁴. The plaintiff must prove that the defendant owes him a duty of care, and he (the defendant) breached this duty by committing an act or omission caused an injury to the plaintiff¹³⁵.

The courts will judge if there is a duty of care or not and whether the defendant has been in breach of this duty by referring to many factors; it will weigh the magnitude of risk produced by defendant's conduct, the utility of that conduct and the burden of taking the appropriate measures to eliminate the risk involved¹³⁶.

7.2. Duty of Care

The duty of care lays down the standard of care which a person or a company is expected to achieve when carrying out certain activities, and the range of individuals to whom a duty is owed. The more dangerous the activity, the higher is the standard of care expected and the court will expect the defendant to take some precautions to avoid damage being occurred to the plaintiff¹³⁷.

In the case of hazardous materials or those activities that are potentially harmful to the environment, the courts have generally applied existing industry standards which tend to be high and may create standard close to strict liability in the sense that taking even the highest precautions may not provide a defence to the defendant¹³⁸.

In *Blyth v Birmingham Waterworks Co (1856)*, the judge ruled that this standard is an objective standard of care which is expected from a prudent and reasonable man¹³⁹. However, this standard will be raised, if the activity in question requires a certain degree of skill or expertise¹⁴⁰. Therefore, in *Tutton v A D Walter Ltd 1986* for example the court held that there was liability for negligently spraying pesticide on corps contrary to good practice so as to kill neighbour's bees¹⁴¹. And more

¹³⁴ Wilde. M "Extending the role of Tort as a means of Environmental Protection: An investigation of recent Developments in the Law of Tort and the European Union". A PhD thesis, University of Brunel, 1999, P 37

¹³⁵ Brazier. M & Murphy. J "The law of torts". 10th edition. Butterworths. London. 1999. p 171-264. And Bell. S. "Environmental Law: The law and policy relating to the protection of the environment". 4th edition. Blackstone Press Ltd. P198.

¹³⁶ See Hughes. D "Environmental Law". Butterworths. 3th edition. 1996. P 65. And Day. M & Pugh. C "Pollution & Personal injury. Toxic torts" 1995. Cameron May Ltd. P 120-121.

¹³⁷ *Latimer v AEC Ltd [1953] AC 643*

¹³⁸ "Environmental Liability in the UK" A Paper Published by Freshfields Bruchaus Deringer, March 2002.

¹³⁹ *Blyth v Birmingham Waterworks Co (1856) 11 Exch. 781 at 784*

¹⁴⁰ *Bolam v Friern Hospital Management Committee [1957] 1 WLR 582*

¹⁴¹ *Tutton v A D Walter Ltd 1986. QB 61*

importantly the defendant's conduct is to be judged according to standards applicable at the time of that conduct¹⁴²; this point has a great deal to offer in environmental damage cases, especially where the damage is latent or where a long period elapse between the defendant's conduct and the plaintiff's injury.

As for the existence of the duty of care which is a conclusive factor to establish liability under negligence, courts are cautious when they decide this issue¹⁴³. Following the ruling in *Donoghue v Stevenson* (1932) which gave impulsion to the neighbourliness notion as a foundation of the duty of care, the court require a proximate relation between the defendant and the plaintiff in order to decide the existence of the duty of care; In *Anns v Merton London Borough Council of Merton* [1978], the House of Lords laid down a two stages test of the existence of a duty of care. Lord Wilberforce stated that: "in order to establish that a duty of care arises in a particular situation, one has to ask whether, as between the alleged wrongdoer and the person who has suffered damage there is a sufficient relationship of proximity or neighbourhood such that, in the reasonable contemplation of the former, carelessness on his part may be likely to cause damage to the latter – in which case a prima facie duty of care arises"¹⁴⁴. Since then the courts stipulate that the requirement of proximity must be satisfied before a duty of care is held to be existed.

In the case of *Caparo Industries v Dickman* [1990], Lord Bridge ruled that "... there should exist between the party owing the duty and the party to whom it is owed a relationship characterised by the law as one of 'proximity' or 'neighbourhood' and that the situation should be one in which the court considers it fair, just and reasonable that the law should impose a duty of a given scope upon the one party for the benefit of the other"¹⁴⁵. The requirement of proximity involves the notion of nearness or closeness and embraces physical proximity (in the sense of space and time) between the person or property of the plaintiff and the person or property of the defendant, and also circumstantial proximity such as an overriding relationship of employer and employee or of a professional man and his client"¹⁴⁶.

¹⁴² *Roe v Minister of Health* [1954] 2 QB 66

¹⁴³ Hughes. D "Environmental Law", Butterworths.3th edition, 1996. p 64

¹⁴⁴ *Anns v Merton London Borough Council of Merton* [1978] 1 AC 728, in this case the House of Lords ruled that where there was foreseeability and proximity there should be a duty of care unless there was a policy reason for holding that no duty existed.

¹⁴⁵ *Caparo Industries v Dickman* [1990] 2 AC 605

¹⁴⁶ *Sutherland Shire Council v Heyman*. (1985) 157 CLR 424

However, such a duty may not be owed to a particular plaintiff, if the potential plaintiff was unforeseeable; this particular flexibility is of significant importance in environmental damage cases, where it might be hard to foresee the identity of the plaintiff¹⁴⁷. However, as a general rule, the courts should conclude that a relationship of proximity exists where the imposition of liability would be fair, just and reasonable¹⁴⁸.

In *Gunn v Wallsend Sliway and Engineering Co Ltd 1989*, the claim failed where it was held that no duty of care existed in respect of a woman who had died of Mesothelioma after inhaling Asbestos dust from clothes worn by her husband while working in the defendant's shipyard; because the court ruled that at that time no one knew that the disease could be contracted in this way and therefore damage was not reasonably foreseeable¹⁴⁹, whereas in the case of *Margereson v. J.W.Roberts Ltd [1996]*, the High Court judge award damage to the plaintiff who contracted mesothelioma having lived and played near the asbestos textile factory in Armely-Leeds. The action arose from environmental exposure that allegedly occurred from 1930s onwards and the court found the defendant guilty for allowing the plaintiffs to play in the immediate vicinity of the factory and therefore being exposed to the danger of the asbestos dust, because scientific knowledge about this health hazard was available at that time 1930 and therefore the defendant has been in breach of his duty of care towards the plaintiffs. The court held that the owner of an Asbestos factory should reasonably have foreseen prior to 1925 a risk of some pulmonary injury to children playing in the factory loading bay and was therefore Liable when they developed mesothelioma. It was particularly concerned with the fact that the defendant's factory at Armely- Leeds did not meet ordinary standard of safety, nor the defendants make serious attempts to comply with their obligations under the Asbestos Industry Regulations of 1931¹⁵⁰. The difference between this case and *Gunn v Wallsend Sliway and Engineering Co Ltd* is that in the later, the woman was not an employee, nor she was a resident in the nearby area like in *Margereson* case.

In *Tutton v A D Walter Ltd 1986* the court held that "there was liability for negligently spraying pesticide on corps contrary to good practice so as to kill

¹⁴⁷ *Bourhill v Young* [1943] AC 92

¹⁴⁸ *Caparo Industries v Dickman* [1990] 2 AC 605

¹⁴⁹ *Gunn v Wallsend Sliway and Engineering Co Ltd*. The Times. January 23rd. 1989

¹⁵⁰ *Margereson v. J.W.Roberts Ltd [1996]*, *Env LR (4)* 304

neighbour's bees"; because the defendants were advised -by the manufacture and the central government- not to use the insecticide in certain period in order to avoid causing harm to the plaintiff bees¹⁵¹, likewise in *Barnes v Irwell Valley Water Board* [1930], it was held that the failure by a water company to warn consumers of potentially unwholesome water constitutes negligence¹⁵².

One may argue that, the mechanism by which courts decides the existence of duty of care and the standard of the care required should be broadened where environmental damage is in question; because environmental damage may affect innumerable and unidentifiable victims where no proximate relation exists between the polluter and the victims of his harmful activity. Indeed, courts must think according to the precautionary principle while deciding the existence of the duty of care and the required standard of care; such an approach – if applied- will provide a significant protection to the environment as well as the victims of environmental damages.

7.3. Foreseeability of the damage

The foreseeability test will be applied in determining liability in negligence¹⁵³; the unforeseeable damage is not recoverable in negligence, and to decide what is foreseeable, courts examine the facts of the case, state of arts and the scientific knowledge available at the time of defendant's conduct, it must be borne in mind that the defendant's conduct is to be assessed according to standards applicable at the time of the polluting incident. If a disposal of waste took place some years ago, it would be wrong to judge any precautions taken by the standards of today, therefore in *Roe v Minister of Health* (1954), the court said "we must not look at 1947 accident with 1954 spectacles"¹⁵⁴. Therefore; in *Margereson v, JW.Roberts Ltd* [1996], the court found the defendant liable for causing damage to the plaintiff who contracted mesothelioma resulted for asbestos exposure because the damage suffered by the

¹⁵¹ *Tutton v A D Walter Ltd* [1986] QB 61

¹⁵² *Barnes v Irwell Valley Water Board* [1930] 1 KB 2, see also *Scott-Whitehead v National Coal Board* [1987] P & CR 263

¹⁵³ As regards the foreseeability of the damage, negligence, nuisance and the rule of *Rylands v Fletcher* are indistinguishable. See Day.M & Pugh.C "Pollution & Personal Injury: Toxic Torts" 1995. Cameron May Ltd. P 122.

¹⁵⁴ *Roe v Minister of Health* [1954] 2 QB 56 at page 66. Lord Denning said in that case "We must not condemn as negligence that which is only a misadventure. Nowadays 1954 it would be negligence not to realize the danger, but it was not then."

plaintiff was reasonably foreseeable according to the scientific knowledge available at the time of exposure¹⁵⁵.

In *Cambridge Water Company v Eastern Counties Leather plc* (1994), Lord Goff mentioned foreseeability as a prerequisite for liability in negligence as a unquestionable issue when he stated “the development of the law of negligence in the past sixty years points strongly towards a requirement that such foreseeability should be a prerequisite of liability in damages for nuisance, as it is of liability in negligence”¹⁵⁶. This judgement although, demonstrated that the conditions under which liability arisen in nuisance are edging closer to those applicable under liability of negligence specially in relation with foreseeability requirement, but liability in negligence still requires a defendant’s fault¹⁵⁷.

7.4. Causation:

Causation plays a central role in all common law actions. However, in environmental damage cases it can be difficult in some circumstances to establish -on the balance of probabilities- a causal link between an emission complained of and the damage allegedly suffered as a result. In *Reay v British Nuclear Fuels Plc* 1994, the court, after hearing many scientific witnesses concluded that the plaintiff had failed to prove on the balance of probabilities that the defendant radiation has caused the alleged Leukaemia for the plaintiff children¹⁵⁸.

This case proves the difficulties faced the plaintiff in environmental damage cases, where there is no conclusive evidence that the injury they sustained is the result of the environmental pollution. The difficulty of establishing causation is exemplified by the case of *Graham v Rechem* [1995], where the plaintiffs, Mr and Mrs Graham, alleged that their cattle were poisoned by chemicals ingested on their farm, which they claimed had been deposited on their land after being emitted from the defendant company’s hazardous waste incinerator. The plaintiffs submitted that it was not necessary to prove that the emissions were the sole cause of physical injury but just that those emissions materially contributed to the cattle’s ill health. However, the court rejected their argument on the basis that it should be proved on the balance of

¹⁵⁵ ¹⁵⁵ *Margereson v. J.W.Roberts Ltd* [1996], *Env LR* (4) 304

¹⁵⁶ *Cambridge Water Company- v- Eastern Countries Leather plc* (1994) 1 *All ER* 53 *HL*

¹⁵⁷ Gerven. W & Lever. J & Larouche. P “ Common law of Europe casebooks. Tort Law”. Oxford & Protland. Oregon. 2000. P171.

¹⁵⁸ *Reay v British Nuclear Fuels Plc* (1994) 5 *Med LR* 1

probabilities that the defendant's wrongdoing led to the plaintiff harm, and held that the plaintiffs had not established- on the balance of probabilities- that the operation of the incinerator had caused the ill health of their cattle. The case was one of the longest running in English legal history and included 21 expert witnesses giving evidence on issues as varied as veterinary toxicology, agricultural accountancy and incinerator design¹⁵⁹.

Of particular importance in determining causation is the 'But for Test' applied by courts to weigh the requirement of causation. Causation typically is established on the basis of the "but for" test. The essence of this test is, If "but for" the Defendant's conduct, the Plaintiff would not have suffered the loss in question, a sufficient causal connection exists¹⁶⁰.

The "but for" test gives rise to a well-known difficulty in cases where there are two or more acts or events which would each be sufficient to bring about the plaintiff's injury specially in environmental damage cases where multiple polluters contribute to the plaintiff damage. The application of the test gives the result, contrary to common sense, that neither is a cause.

So far, and as common law stands there is no trend to innovate an alleviation of the burden of proof so as to allow victims to establish a prima facie proof of causation. However, the House of Lords start to modify the law to allow sort of flexibility to the rules of causation in special circumstances, in *McGhee v National Coal Board* [1972], the court ruled that the failure by the defendant's had on the evidence materially increased the risk of dermatitis, which for practical purposes was equal to a finding that the failure had materially contributed to the risk and the defendants were therefore liable¹⁶¹.

This approach of flexibility was shown also in the case of *Fairchild v Glenhaven Funeral Services Ltd and others* [2002]; the fact of this case is that, Arthur Fairchild died of mesothelioma, a lung cancer caused by exposure to asbestos dust. However, he had been exposed to asbestos in the course of more than one employment. He could not recover damages from any of the employers, since he could not establish on

¹⁵⁹ *Graham & Graham v. Rechem International Ltd.* 1995.7 ELM 175

¹⁶⁰ *Barnett v. Chelsea and Kensington Hospital Management* [1969] 1 QB 428, see also, *McWilliams v Sir William Arrol & Co* [1962] 1 WLR 295

¹⁶¹ *McGhee v National Coal Board* [1972] 3 All ER 1008

the balance of probabilities when it was that he inhaled the asbestos that caused the mesothelioma to develop.

The House of Lords unanimously ruled in favour of Mrs Fairchild. The Lords looked at the concept of causation and whether the 'but for' test is appropriate in all cases, in this judgement the House of Lords concluded that the "'but for' test does not apply in cases where it will create an injustice", and held that "Where an employee had been exposed by different defendants, during different periods of employment, to inhalation of asbestos dust in breach of each defendant's duty to protect him from the risk of contracting mesothelioma and where that risk had eventuated but, in current medical knowledge, the onset of the disease could not be attributed to any particular or cumulative wrongful exposure, a modified approach to proof of causation was justified. In such a case proof that each defendant's wrongdoing had materially increased the risk of contracting the disease was sufficient to satisfy the causal requirements for his liability. Accordingly, applying that approach and in the circumstances of each case, the claimants could prove, on a balance of probabilities, the necessary causal connection to establish the defendant's liability"¹⁶².

¹⁶² *Fairchild v Glenhaven Funeral Services Ltd and others* [2002] 3 All ER 305

Chapter Five:

Civil Liability for Environmental Damage in Europe

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2. Environmental protection and the EC Treaties:

3. Justifications of a wide environmental liability regime in Europe:

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9- Looking forward:

1. Introductory Remarks:

The importance of studying civil liability for environmental damage at the European level in this thesis is beyond doubt; it has a practical and theoretical significance. As for the practical importance, the UK is an active member in the European Union; and therefore, the development of civil liability for environmental damage at the European level will certainly affect the development of its law¹.

The theoretical importance for this subject are, examining the mechanisms by which environmental law principles are applied-especially those related to liability- i.e. polluter pays principle, and precautionary principle. Additionally, a comparative analysis of environmental liability regimes may give incentives for national environmental law since there are many useful concepts throughout European initiatives that can be incorporated within the national jurisdiction both in the UK and Jordan when shaping their own environmental liability regimes such as the clear and explicit incorporation of environmental principles and the relatively more advanced approach in dealing with environmental damage from a human rights perspective². Therefore, this chapter will trace the most important European initiatives in the field of civil liability for environmental damage³.

Environmental liability is among the most rapidly evolving areas of European law in recent years⁴, and it is believed that, at a Community level; introducing legislation to deal with this issue would contribute to a more effective EU environmental protection policy⁵.

A Community initiative in this field is justified in terms of subsidiarity and proportionality, on the ground of the insufficiency of separate Member State regimes to

¹ Bell. S & David, M, "Environmental Law: The Law and Policy relating to the Protection of the Environment". Blackstone Press Limited. 5th Ed, 2000, p 113

² See Chapter two.

³ Principle 13 of The Rio Declaration states "States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage. Rio Declaration 1992

⁴ Freestone. D "European Community Environmental Policy and Law", In "Law, Policy and the Environment", Edited by Churchill. R, Warren. L, and Gibson. J, 1991, Basil Blackwell, p135-155, also Betlem. G & Faure. M "Environmental Toxic Torts in Europe: some trends in recovery of Soil clean-up cost and Damages for Personal Injury in the Netherlands, Belgium, England and Germany". (1998),10, *Georgetown International Environmental Law Review*, p 855

⁵ See Betlem. G "Liability for Damage to the Environment". In "Towards a European Civil Code", Edited by Hartkam and others, 1998. Kluwer Law International at P 473-491.

address all aspects of civil liability for environmental damage. The integrating effect of common enforcement through EC law and the flexibility of an EC framework regime which fixes objectives and results, while leaving to Member States the ways and instruments to achieve them may enhance environmental protection as a major objective to the EC.

It was stated that: “An integrated Community approach to environmental liability will be established... liability will be an essential tool of last resort to punish despoliation of the environment. In addition- and in line with the objective of prevention at source- it will provide a very clear incentive for management and control of risk”⁶.

2. Environmental protection and the EC Treaties:

As for Europe, The EC has its origins in three treaties, Rome, Amsterdam, and the Maastricht Treaty. In a legal term, none of these treaties contained provisions specifically attributing the authority to legislate in environmental matters⁷. However the Treaty of Amsterdam states that “environmental protection requirements must be integrated into the definition and implementation of Community policies and activities referred to in Article 3, in particular with a view to promoting sustainable development”⁸.

Despite the lack of legal authority, the European Communities had been legislating in the environmental area since late 1960s⁹, for example, the EC has adopted measures relating to diverse environmental matters such as air pollution caused by motor vehicles and biodegradability of detergent. This is besides the fact that most of Member States within the EC have already introduces their own environmental liability schemes or

⁶The European Community Programme of Policy and Action in Relation to the Environment and sustainable Development, COM (92) 23 Final, approved by the Council of Europe in its resolution of 1 Feb 1993.

⁷ The environment was not a consideration in the treaty of Rome. See Emily. R “Judicial Review and the Protection of non-Commercial Interest in the European Community”,(2000),3(1),*Current Legal Issues*,p1 available at <http://www.webjcli.ncl.ac.uk/2000/issue3-1/reid1.html>, See also Bell. S “Environmental Law: The Law and Policy relating to the Protection of the Environment”. Blackstone Press Limited.1997, P64.

⁸ Article 6 of the Treaty of Amsterdam 1997 which came into force in 1999

⁹ So far there are more than 200 Directives and Regulations concerning environmental protection aspects. See Matthieu. G “The Implementation of Environmental Policy in the European Union Context” in “Implementing European Environmental Policy; the Impacts of Directives in the Member States” edited by Matthieu. Glachant. 2001. Edward Elgar Publishing limited. P 12-29.

relies on the traditional rules of liability to deal with environmental damage¹⁰. But one of the most significant limitation of traditional systems dealing with environmental liability is that they generally provide no protection for the unowned environment; it have rules which allow plaintiffs to seek protection against the possibility of harm being caused to them or to their properties.

However, where there is no private ownership or exclusive possession, the environment is a free good; no individual has the right to commence proceedings against another individual who exploits or damages it¹¹. Notably in the Netherlands the law prepares to give environmental interest groups the right to sue polluters and recover the cost of cleaning up or restoring the damaged environment that¹².

The Treaty of Rome, which was adopted in 1957 to establish the European Economic Community, did not address environmental protection as an objective to this entity¹³; this could be due to the fact that, at that time environmental issues were not a top priority for the Member States, but in a latter stage The EU Treaty lays down that “environmental protection requirements must be integrated into the definition and implementation of other Community policies”¹⁴.

The legal basis for European environmental policies is founded in Article 174 formerly (Article 130 r) of the EC Treaty, which sets out the basic components that should be taken into consideration while forming the European environmental policy, according to Article 174/2 “Community policy on the environment shall be based on the precautionary principle and on the principle that preventive action should be taken, that environmental damage should as a priority be rectified at source and the polluter should pay”.

The issue of whether or not the EU should have a common civil liability regime for environmental damage has been the subject of debate since the early 1980s; because it raises many crucial questions such as, what kind of liability should be applied (i.e.

¹⁰ Wilde. M “Extending the Role of Tort as a means of Environmental Protection: an Investigation of recent Developments in the Law of Tort and the European Union” PhD thesis, University of Brunel. 1999. 129.

¹¹ Wightman, J “Nuisance – the Environmental Tort? Hunter v Canary Wharf in the House of Lords”, (1998), 61, M. L. R, pp 870-885

¹² Betlem. G, “Standing for Ecosystems- Going Dutch”, (1995), 54 (1), C. L. J, p153-170

¹³ Simcox. D “The future of Europe lies in Waste: The importance of the Proposed Directive on Civil Liability for Damage caused by Waste to the European Community and its Environmental Policy”.(1995), 28, *Vanderbilt Transnational Law Journal*, p 5

¹⁴ Article 6 of the Treaty of Amsterdam 1997 which came into force in 1999

should polluters be made liable only where they can be shown to have been at fault, or should they be held strictly liable regardless of any fault on their part? to whom should the new liability regime apply?; Should the regime apply retroactively?; How should liability be apportioned between several potentially liable parties? And what defenses should be allowed to escape liability? As will be seen later, these are only some of the questions that should be answered by an EC environmental liability regime.

3. Justifications for a wide environmental liability regime in Europe:

The need for an environmental liability regime applicable throughout Europe can be justified by the main objective of the EC¹⁵, which is creating an internal market among the member states and not to distort competitiveness among them. This consideration was affirmed in the proposed directives on civil liability for damage caused by waste and by the Green Paper where it is stated that “different systems of civil liability for environmental damage could lead to distortions of competition”¹⁶. However, the Green Paper does not contain any evidence for this assertion, but these distortions among member states are likely to occur where some countries adopt stricter liability regimes while others do not¹⁷.

It is believed that disparities among laws of the member states concerning liability for environmental damage could lead to artificial patterns of investment¹⁸, such a situation would distort competition, affect the free movement of goods within the internal market and entail differences in the level of protection of health, property and the environment, so that an approximation of the laws of the member states on this subject is therefore needed¹⁹.

¹⁵ Wilde. M “The EC Commission’s White Paper on Environmental Liability: Issues and Implications”. (2001), 13 (1), *Journal of Environmental Law*, p 21-37

¹⁶ Green Paper COM (93) final

¹⁷ Betlem. G “Liability for Damage to the Environment”, in “Towards a European Civil Code”, Edited by Hartkam, and others. 1998. Kluwer Law International at P 473-491. See also Wilde. M “Extending the role of Tort as a means of Environmental Protection: an investigation of recent developments in the Law of Tort and the European Union”, University of Brunel. 1999. 151.

¹⁸ Commission Proposal for a Council Directive on Civil Liability Damage Caused by Waste, 1989 OJ (C 251) 3

¹⁹ Some member states have already introduced their own schemes regarding environmental liability i.e. Sweden, Germany, Finland, Denmark, and Spain is in the process of enacting legislation. See Barrenetxea. G “The Spanish Draft Act on Liability for Environmental Damage” (1997), 6 (1), *Journal of Environmental Liability*, p 115

It is worth mentioning that the EC has been allowed to intervene where it is faced with an issue falls within the objectives of the EC and it considers that an action at a member states level would not be sufficient to meet those objectives “the subsidiarity principle”, bearing in mind that it must only take action to the extent necessary to attain its objectives: “the proportionality principle”. The EC Treaty provides that: “The Community shall act within the limits of the powers conferred upon it by this Treaty and of the objectives assigned to it therein. In areas which do not fall within its exclusive competence, the Community shall take action, in accordance with the principle of subsidiarity, only if and insofar as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community. Any action by the Community shall not go beyond what is necessary to achieve the objectives of this Treaty”²⁰.

Furthermore, there is an argument suggests that a European initiative in this issue is justified because of the insufficiency of separate Member State regimes to address all aspects of environmental damage²¹. However, EC environment liability regimes could best find its basis on environmental protection urgency rather than the internal market considerations; since there is no available empirical evidence that markets would be distorted if Member States continued with their present civil liability regimes²². Moreover, it's widely believed that the traditional liability systems are inadequate in the case of environmental damage, because these norms are designed to ensure compensation or restoration once environmental harm has occurred, and not to prevent harm. There is the view that, by creating a system to compensate for environmental damage; the parties involved will start to feel more responsible towards protection of the environment from being harmed by their activities, which creates incentives for polluters to avoid causing environmental damage.

This fact should be perceived in line with the fact the Europeans have also been aware of the US experience in the field of civil liability for environmental damage with the implementation of the Federal Superfund regime which imposed liability retrospectively and without requiring any fault in the defendant part to be held liable for the damage he

²⁰ Article 5 of the EC Treaty

²¹ Opinion of the Committee of the Regions on the European Commission White Paper on Environmental Liability, Official Journal of the European Communities, 2000

²² See R. Turrall-Clarke, “Civil liability for Environmental Damage in Europe”, (1993) Cambridge Academic, p 12

caused. Some writers are of the opinion that the US experience in the field of environmental liability is to be taken into account in deciding legislative choices within the European Community²³.

4. EC initiatives in the field of environmental liability:

The European Commission has been active in the field of civil liability for environmental damage for more than three decades. Therefore, and during the last three decades, the European Union has developed a more comprehensive environmental policy and there are subsequent attempts to enact a comprehensive environmental liability regime²⁴. The most important initiatives in this regard are, the Draft Directive on Civil Liability for Damage Caused by Waste 1989, The Lugano Convention 1993, Green Paper on Remedying Environmental Damage 1993, the White Paper on environmental liability 2000, and finally the Directive on environmental liability with regard to the prevention and remedying of environmental damage 2003. Brief remarks will be provided for each of these initiatives with detailed analysis as regards the last Directive, since the latter is likely to be implemented if approved by the European Union Institutions.

4.1. The Draft Directives on Civil Liability for Damage Caused by Waste 1989²⁵:

The initial effort for the European Commission regarding civil liability for environmental damage was the Draft Directive on Civil Liability for Damage Caused by Waste. It was issued in 1989 following the “Sandoz” disaster²⁶. Article 3 of this Proposed Directive provides that (the producer of waste shall be liable under civil law for the damage and impairment of the environment caused by waste, irrespective of fault on his part). An Important feature in this Proposed Directive was that, there will be no liability whatsoever in respect of pollution occurring prior to the introduction of the

²³ Betlem. G “Liability for Environmental Damage”, In “Towards a European Civil Code”, Edited by Hartkamp, A and others, 1998, Kluwer Law International, At 473-491

²⁴ Lenschow. Andrea, “New Regulatory Approach in Greening EU Policies” (2002), 8 (1), *European Law Journal*, pp 19-37

²⁵ Commission Proposal for a Council Directive on Civil Liability Damage Caused by Waste, 1989 OJ (C 251) 3

²⁶ A fire broke out in the Sandoz AG chemical factory near Basel, Switzerland. And as firemen extinguished the flames, water mixed with toxic pesticides and seep into the Rhine River. The deadly cocktail killed tons of eels, fish and other animals, and prompted a drinking water alert for 50 million people as far away as Amsterdam. Jean-Pierre. H “European waste law”, 1998, Kluwer Law International, P 118

legislation, therefore liability for historic pollution remains with no answer. Moreover the Proposed Directive provides for a thirty-year statutory limitation, during which an action may be brought, but the plaintiff should bring his action within three years of the time at which he first knew or ought to have known of the harm and identity of the responsible party (article 9/1 of the Proposed Directive).

This proposal required substantial changes in the national laws of the EC member states²⁷. It is to be mentioned however that, the basic legal effect of an EC Proposed Directives was laid down in article 189/3 of the EC Treaty, which provides that; "the Directive is binding as to the result to be achieved", this means that, Member States are bound to adjust their national laws not later than the deadline fixed by the directive. In addition, this obligation entails that a Member State should change its laws so as to be in conformity with the Directive. Moreover, national courts are bound to interpret national law in the light of the objectives and the wording of the Directive²⁸. However pioneering, this proposal is now being shelved due to the subsequent Commission initiatives on environmental liability as will be seen below²⁹.

4.2. Lugano Convention³⁰:

The Council of Europe has prepared the Lugano Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment in 1993. The convention aims at ensuring adequate compensation for damage resulting from activities dangerous to the environment and provides for means of prevention and reinstatement. It requires its parties to adopt a strict liability regime regarding dangerous activities; these activities include the production, handling, storage, use, destruction, disposal of dangerous substances, genetically modified organisms or hazardous micro-organisms. The regime adopted by this Convention will also apply to operators who

²⁷ The Proposed Directive for damage to the environment caused by waste is currently exists as a proposal, and to become effective, the proposal requires the approval of a qualified majority of the environmental ministers of the member states. See Munteer. T "Proposed European Community Directive for Damage to the Environment caused by Waste", (1997), 23, *Journal of Northwestern School of Law of Lewis & Clark College*, p 107

²⁸ Christian. Peter & Graff. Muller "EC Directives as a means of private law unification". In "Towards a European Civil Code", Edited by Hartkamp. Arthur & Martijn. Hesselink & Ewoud. Hondius & Carla Joustra & Edgar du perron) Kluwer Law International. Chapter 5, P 71-91. 1998. See also Freestone. D "European Community environmental policy and law", In "Law, Policy and the environment" Edited by Churchill. R, Warren. L and Gibson. J, 1991 Publihsed by Basil Blackwell, P135-155.

²⁹ Wilde. M "Extending the role of tort as a means of environmental protection: an investigation of recent developments in the law of tort and the European Union". University of Brunel, 1999, p 140

³⁰ The Lugano Convention has been signed by Cyprus. Finland. Greece. Iceland. Ireland. Italy. Liechtenstein. Luxembourg, and the Netherlands. However, it will not come into force until ratified by three States.

engaged in sites for incineration treatment, handling, or recycling hazardous waste. Article 6 states that (the operator in respect of a dangerous activity... shall be liable for damage caused by the activity as a result of the incidence at the time or during the period when he was exercising control of that activity).

As for the defenses available, the Convention provides that the operator shall not be liable for the incidence resulting from acts of war, hostilities, civil war, insurrection, or natural phenomena which has an exceptional, inevitable, and irresistible character. It's important to note that, as the European Commission opted to introduce a Directive on Environmental Liability³¹, there is less hope that the Lugano Convention will be ratified, therefore, there is no need to discuss it any further, and probably the Lugano Convention will continue to have a historical importance.

4.3. Green Paper on Remedying Environmental Damage 1993³²

In May 1993 the European Commission released a Green Paper on Remedying Environmental Damage, which examined the possibility of introducing a wider civil liability regime for environmental damage. The purpose of such a proposal is to stimulate and activate the debate over aspects related to civil liability in environmental context. The Green Paper defines environmental liability as a means of making polluters pay for remedying the damage which they cause and identifies the kinds of recoverable damage. Green Paper stressed that the main reasons for introducing such a Community regime are to ensure better implementation of the polluter pays, prevention and precautionary principles, to make sure that the environment is decontaminated and restored, to apply the Community's environmental legislation more strictly, and to integrate the environment more closely into other policy areas at a Community level.

The Green Paper recognised that historic pollution requires different solutions from future pollution. Therefore, civil liability cannot be the best approach to deal with historic pollution. However, the Green Paper did not offer any specific rules in the subject matter and it only mentioned main issues that a European civil liability regime for environmental damage should address. Therefore, the Green Paper 1993 was a more

³¹ Directive on Environmental Liability with regard to the Prevention and Remedying of Environmental Damage, (COM (2002)17), Brussels, 23/1/2002, this Directive entered into force in 30 April 2004

³² COM(93) 047, May 1993

consultative than a decision-making paper; it only rehearsed the problem without suggesting how they might be resolved³³.

Shortly after the release of the Green Paper, a joint public hearing on environmental liability was held by the European Parliament and the Commission, and then the European Parliament on April 1994 called upon the Commission to examine the feasibility of establishing a Community-wide environmental liability regime to properly apply the Community's environmental principles included in the EC Treaty³⁴. Some years afterward, this call found its response in the release of the European Commission White Paper on Environmental Liability 2000.

4.4. The European Commission White Paper on Environmental Liability 2000³⁵:

After the above-mentioned request from the European Parliament, there were three options envisaged by the Commission: 1- a broad framework directive covering all aspects of environmental liability; 2- specific directives for certain sectors or situations; 3- accession to the Convention of the Council of Europe, Lugano Convention. Since then the Commission decided that a White Paper on environmental liability should be prepared, having in mind that most of the member states have shown formally or informally a supportive opinion with respect to community action regarding the issue of environmental liability. Following a substantial consultation the European Commission adopted a White Paper on Environmental Liability in 9 Feb 2000.

4.4.1. Objective of the White Paper:

The aim of the White Paper is to explore how the polluter pays principle can best be applied to serve the objectives of Community environmental policy, which enshrined in article 174 of the EC Treaty, keeping in mind that avoiding environmental damage is the main aim of this policy. Besides this central aim, the White Paper explores how a Community regime on environmental liability might best be shaped in order to improve the application of the environmental principles of the EC Treaty and to ensure restoration of damage to the environment.

³³ See Grant. M "European Environmental Law", 1996, P 223.

³⁴ The Maastricht Treaty empowers the European Parliament to act by a majority of its members to request the Commission to submit any appropriate proposal on matters on which it considers that a Community action is required for the purpose of implementing the Treaty. See Maastricht Treaty, Feb 7, 1992. Resolution of 20 April 1994 (OJ C 128. 9.5. 1994, P 156)

³⁵ White Paper on Environmental Liability, COM 2000, 66 Final, 9 February 2000

The White Paper also explores how an EC environmental liability regime can help to improve the implementation of Community environmental law, and examines the possible economic effects of such a Community action. "In essence, the White Paper proposes to increase the role of civil liability as a means of environmental protection"³⁶. The main aim of the civil liability is to make the causer of environmental damage (the polluter) pay for remedying the damage that he has caused, the failure to implement this principle will result in either the environment remains unrestored or the state and ultimately the taxpayers will bear the cost of remedying environmental damage.

To internalize the cost of remedying environmental damage, the White Paper indicated that not all forms of environmental damage could be remedied through liability³⁷; for liability to be effective, there is to be one or more identifiable actors (polluters), so that liability is not a suitable instrument for dealing with pollution of a widespread, diffuse character since it is impossible to link the adverse environmental effects with the activities of certain individual actor³⁸, such as effects of climate change, forests dying as a result of acid rain and air pollution caused by traffic.

Moreover, the damage needs to be concrete and quantifiable; and a causal link should be established between the damage and identified polluter's activity. Therefore, the White Paper sets out the various options and the issues arise in the context of environmental liability, such as the possibility of easing the burden of proof on causation and confer standing for environmental pressure groups. As for the precautionary principle, the risk of incurring liability would persuade operators to take sufficient steps to prevent future incidents³⁹.

Likewise the Green Paper, The White Paper does not contain a detailed proposal for a new EU-wide environmental liability regime. Rather, it discusses various issues that

³⁶Wilde. M "The EC Commission's White Paper on Environmental Liability: Issues and Implications", (2001), 13 (1), *Journal of Environmental Law*, pp 21-37

³⁷Internalization of environmental costs means that the costs of preventing and restoring environmental pollution will be paid directly by the parties responsible for the damage rather than being financed by society at large.

³⁸This point is also expressed by the Commission new proposal 2002 as will be seen later when discussing (Proposal for a directive of the European Parliament and of the Council on Environmental Liability with regard to the prevention and restoration of environmental damage).

³⁹The EC Fifth Action Programme justifies Community action in the field of civil environmental liability on the basis that (Liability will be an essential tool of last resort to punish despoliation of the environment by requiring the polluter to pay for any damage caused. In addition and in line with the objective of prevention at source, it will provide a very clear economic incentive for management and control of risk).

will be addressed in a future legislative proposal. However, The White Paper concludes that, the most appropriate option would be a framework directive providing for strict liability for damage caused by EC-regulated dangerous activities, with defences, covering both traditional damage and environmental damage per se, and fault-based liability for damage to biodiversity caused by non-dangerous activities.

4.4.2. The main features of the EC White Paper on environmental liability:

1- The requirement of no retroactivity:

Liability under the regime proposed by the White Paper will be prospective, not retroactive - leaving to each member state the job of dealing with pollution that occurs prior to the regime's effective date. This prospective application is understandable and desirable for reasons of legal certainty and legitimate expectations, it is widely accepted that any EC regime should only work prospectively to cover damage which only occur after the entry into force. Therefore, Member States will have their own regimes to deal with past pollution which needs to be defined in order to apply the non-retroactivity in a harmonized way.

However important, historic pollution in the Member States is generally govern by regulatory regime⁴⁰, because tort law rules can not offer appropriate solutions in this regard, and the reluctance shown by the national courts to modify tort law rules in away that suit historic environmental damage⁴¹.

2- The scope of the regime:

This feature includes two main points, the types of damage to be covered and the activities resulting in such a damage to be covered. In this regard, there are two kinds of damage, environmental damage per se or ecological damage; this represents damage caused to the environment apart from damage caused to persons or properties. The White Paper proposes that damage to persons and property "traditional damage" should be covered if it is caused by a dangerous activity within the scope of the EC environmental liability regime. It also proposes a regime to deal with "environmental damage", which it defines as damage to biodiversity and damage in the form of contamination of sites. However, the coverage of biodiversity damage is restricted to

⁴⁰ In the UK for example, a contaminated land regime was introduced by the Environmental Act 1995, section 57 to deal with liability for contaminated sites, notably this regime, adopted a strict approach in settling liability for these sites.

⁴¹ As seen before in *Cambridge Water Company Ltd v Eastern Counties Leather plc* [1994] 2 AC 264

sites that form part of the Natura 2000 network, this restriction is attacked by NGOs in the ground that the protection provided by such regime will cover a marginal part around (10%) of the European territory.

There is an obvious difficulty in determining what environmental damage is; due to the fact that pure environmental damage is incapable of precise definition since it does not equate necessarily with notions such as contamination or pollution.

Some international instruments make an attempt to define environmental damage; the international Convention on Civil Liability for Oil Pollution Damage as amended by the 1992 protocol defines environmental damage in article 2 so as to include “ loss or damage caused outside the ship by contamination resulting from the escape or discharge of oil wherever such escape or discharge may occur provided that compensation for impairment of the environment other than loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken”.

Whereas, the Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment (Lugano 21 June 1993) defines environmental damage as meaning a- loss of life or personal injury, b- loss of or damage to property other than to installation itself or property held under the control of the operator at the site of the dangerous activities, c- loss of or damage by impairment to the environment in so far as this is not considered to be damage within the meaning of subparagraph a or b above, provided that compensation for impairment of the environment other than for loss of profit from impairment shall be limited to the costs of measures of reinstatement actually undertaken or to be undertaken to the extent that loss or damage referred to in subparagraph a to c of this paragraph arises out of or result from hazardous properties of the dangerous substances, genetically modified organism or micro- organisms or results from waste” Article 8.

The second element of this feature is the activities which should be covered by the regime: the activities to be covered with respect to health or property damage and contaminated sites, could be those regulated in the following categories of the EC legislation: legislation which contains discharge or emission limits for hazardous substances into water or air; legislation dealing with dangerous substances and preparations with a view to protecting the environment; legislation with the objective to prevent and control risks of accidents and pollution, namely the IPPC (Integrated Pollution Prevention and Control); the revised Seveso II directive; legislation on the

production, handling, treatment, recovery, re-cycling, reduction, storage, transport, transfrontier shipment and disposal of hazardous and other waste; legislation in the field of biotechnology; and legislation in the field of transport of dangerous substances. Moreover, the potential risks associated with the genetically modified organisms justify covering it within the scope of a Community wide liability regime according to the precautionary principle.

As for biodiversity damage, the regime should cover the Wild Birds' Directive and the Habitats Directive, which establish a protective regime to be implemented through the Natura 2000 network. Both directives impose strict liability for damage caused to these protected natural resources and habitats regardless the nature of the activity that causes damage to them, since such resources and habitats are vulnerable and can therefore be damaged by other than inherently dangerous activities. However, if the damage caused to these natural resources and habitats results from a non dangerous activity the fault-based liability approach should be prevailed.

3- Types of liability:

Although fault-based liability regime have some advantages⁴², recent national and international environmental liability regimes tend to be based on the principle of strict liability, because of the assumption that environmental objectives are better reached that way. The reason for this belief is that in environmental liability cases, proving fault can be extremely a difficult task for the plaintiff. Moreover, there is a view requiring the person who carries out an inherently hazardous activity to bear the risk introduced by such activities.

The white paper proposed to cover biodiversity damage whether it resulted from dangerous or non-dangerous activities; nonetheless, it applied a fault-based liability whenever the activity caused this damage has a non-dangerous nature⁴³, whereas it proposed a strict liability regime where the damage resulted from a dangerous activities.

4- Allowed defences under the White Paper:

Although strict liability regime is thought to be more effective than the fault-based liability, this effectiveness should not be undermined by allowing too many defences.

⁴² See Chapter 2 of this thesis.

⁴³ Fault-based liability applies when an operator has acted wrongly, intentionally, by negligence, or by insufficient care, such an act or omission may involve non-compliance with legal rules or with the conditions of a permit, or may occur in any other form.

Having this approach in mind, the White Paper has prepared to allow commonly accepted defences, such as act of God (force major), contribution to the damage, consent by the plaintiff, intervention by a third party, and for economic reasons; several interested parties have expressed their desire to allow other defences where the damage caused by a releases authorised under EC regulations, and where the state of arts minimise their capacity to predict the risks associated with their activities.

In my view, the last two defences are to be discussed further before adopting any environmental liability regime, particularly the state of art defence which can be seen as a fallback from the precautionary principle which constitutes a central environmental policy principle in the EC Treaty.

5- The Burden of Proof:

As regards the burden of proof, the White Paper suggested that a substantial alleviation should be made so as to ease plaintiff's task in establishing the causal link between his injury and the defendant's conduct. In pervious drafts, the Commission suggested a rebuttable presumption in favour of the plaintiff which means that, if a certain activity caused damage, the plaintiff need only to show that it was "plausible" that the defendant's activity had caused the damage.

However reasonable, in the final draft, this presumption has been dropped and the White Paper only provides that "the EC environmental liability regime could also contain one or other forms of alleviation of the traditional burden of proof"⁴⁴. This alleviation seems to be crucial in the EC wide environmental liability regime due to the difficulty, which faces the plaintiff in environmental damage cases because of the technical and complex nature of such damage.

At a domestic level, the German Environmental Liability Act 1990 sets up a rebuttable presumption in favour of the plaintiff, this presumption assumes that the defendant caused the damage in question if it can be shown that the defendant's facility is inherently suited to cause that type of harm⁴⁵. The significance of this trend is that, it

⁴⁴ Wilde. M "The EC Commission's White Paper on Environmental Liability: Issues and Implications", (2001), 13 (1), *Journal of Environmental Law*, p 24, See also "The Latest moves Towards an EU Environmental Liability Regime- a White Paper or a White Flag? The National Law Firm, Hammond Suddards Edge, United Kingdom, (2000)available online at www.hammondsuddardsedge.co.uk

⁴⁵ Lundmark. T "Systemizing Environmental Law on a German Model", (1998), 7(1) *Dickinson Journal of Environmental Law & Policy*, p 123

reverses the burden on proof to be on the defendant rather than being on the plaintiff who is the victim suffering the injury. This model can be an example of how the burden of proof in environmental damage case can be eased, and it is hoped that the final draft of the EC Directive on Environmental Liability would provide such presumption or any other form of alleviation.

6- Standing:

Regarding the issue of “locus standi”, it is believed that litigation by knowledgeable plaintiffs is needed in order to make the liability system work in practice; therefore, the White Paper suggests that public interest groups that met specified criteria would be authorised to act in such cases if the state failed to act or acted improperly.

It provides that “Recognised public interest groups would also have the right –in matter requiring urgent action- to seek injunctions against potential or actual polluters to prevent significant or avoid further environmental damage, or to require them to reinstate the damaged environment”⁴⁶.

7- Insurability of environmental damage:

The last feature of the proposed regime introduced by the White Paper is that the exclusion of a system of compulsory insurance against environmental liability, the White Paper considered that it is not appropriate to require compulsory insurance against environmental liability, and it opted to leave this issue to respond to the application of such a regime and then take place on a voluntary basis⁴⁷.

It refers to the fact that insurance companies will not be able to provide financial coverage unless they are able to calculate risks⁴⁸. The justification of not make insurance compulsory seems reasonable from many reasons, the White Paper suggested a strict liability regime for dangerous and potentially dangerous activities regulated by EC environment related law, the uncertainty of the way by which environmental damage is to be calculated, and the fact that insurance companies will probably refrain

⁴⁶ The Commission White Paper on Environmental liability, p 22

⁴⁷ See Section 4. 9 of the European Commission White Paper on Environmental Liability, COM 2000. (66) final, 9th February 2000

⁴⁸ White Paper on Environmental Liability, COM 2000, 66 Final, 9 February 2000. at 24

from providing insurance coverage unless it can predict the risks involved in a certain activity⁴⁹.

5. The Directive on Environmental Liability with regard to the Prevention and Remedying of Environmental Damage:

On 23 January 2002, the European Commission finally published a proposal for a Directive on environmental liability. In doing so, the Commission is fulfilling the commitment it has made in its foregoing White Paper of 2000 on environmental liability. The commission describes the new proposal by saying. "This Directive puts in place for the first time in the European Union a comprehensive liability regime for damage to the environment. In particular, it introduces liability for damage to biodiversity, which no Member State has imposed so far. This is a significant step forward"⁵⁰.

The Directive went through along legislative and conciliation process and has been finally adopted in the 30 of April 2004 one day earlier before the enlargement of the EU in 1st May 2004, which open the door for the speculation about the political and economic considerations as well as the administrative and legislative difficulty in recommencing the whole process with new Council and new Parliament⁵¹.

The Directive is supposed to be based on the main features, which have been laid down in the Commission White Paper. However, the Directive does not go in line with all these features and make some significant changes in many aspects of the adopted environmental liability regime, which weaken the strength of the Regime. An important change that the Directive made is regarding the type of damage which should be covered; the White Paper dealt with traditional damage with little reference to biodiversity damage as far as it is considered to be "significant damage" and occurred within Natura 2000 areas as established under the Habitats and Wilde Birds Directives, whereas the latest Directive is intended to cover only biodiversity damage, leaving traditional damage to Member States' domestic laws.

⁴⁹ Wilde. M. "The EC Commission's White Paper on environmental liability: issues and implications". (2001), 13 (1), *Journal of Environmental Law*, p 22-37

⁵⁰ Press release from the European Commission, "Frequently asked questions on the Commission's proposal on environmental liability" 24 January 2002

⁵¹ Fogleman. Valerie. "The Environmental Liability Directive" (2004), 3, *Journal of Environmental Liability*, pp 101-115

The reason for this exclusion is that, the Commission took the view that traditional damage (personal injury and damage to goods and property) is usually dealt with by national civil law or tort law, it's believed that the need for an EC action with respect to traditional damage is therefore less pressing than regarding ecological damage. This feature of the Directive represents the public law approach to which the Directive is shifted after along lobbying and reconciling among the EU institutions and the concerned parties.

Excluding traditional damage from the Directive may result in some unjust situations, because the same activity may result in traditional and biodiversity damage, and to be coherent, it is important for the regime to cover traditional damage caused by activities resulting in environmental damage in the same time.

Covering only environmental damage under the EU regime while leaving traditional damage to be dealt with on a domestic level might lead to an inequitable results such as, no or less compensation for health damage than for environmental damage resulting from the same incident, bearing in mind that human health and well-being are such an important considerations by virtue of the EC Treaty which placed human health as an objective to its environmental policy (Article 174/1)⁵².

5.1. The main features of the Directive

The main features if of the Directive can be summarised as follows:

1-The aim of the Directive:

The Directive aims to establish a framework whereby environmental damage will be prevented and restored. However, the Directive allows Member States to go further and adopt more stringent measures to protect the environment, by virtue of Article 176 of the EC treaty which provides that “the protective measures adopted pursuant to article 175 shall not prevent Member States from maintaining or introducing more stringent protective measures”.

2- No Retroactivity:

The Directive is intended to apply prospectively; therefore, the Directive will not have a retroactive application. It will only apply to damage resulting from a cause that occurred after the date on which the Directive goes into effect.

⁵² See White Paper on Environmental Liability. COM 2000, 66 Final, 9 February 2000.

This prospective effect of the Directive can not answer the question of old or historical pollution, thus, the cost associated with the cleanup of this type of pollution will not fall under this Directive as far as this pollution have been occurred before the adoption of this Directive. The non-retroactive application is meant to serve legal certainty and to promote risk management approaches applied by operator who wish to minimise their potential liabilities.

In a related context, Article 17 of the Directive provides for a 30 years- limitation period. It states that: “This Directive shall not apply to damage, if more than 30 years have passed since the emission, event or incident, resulting in the damage occurred”.

3- The base of the regime:

The regime is based on the “polluter pays” principle so that the operator whose activity has caused environmental damage or the imminent threat of such damage occurring will be in the front line to bear liability for such damage.

The Directive defined the operator who should be the responsible party for the damage caused to the environment as follows, “operator” means any person who operates the operation of an activity covered by this Directive including the holder of a permit or authorisation for an activity and /or the person registering or notifying such an activity, and this person could be a natural or legal person⁵³.

According to the European Commission, the Directive set out a regime based on the polluter pays principle; so that the person who had actual operational control of the facility or activity concerned at the time the damage was caused will be liable for its remedy. Accordingly, the site operator will be the person who held the responsibility for environmental damage caused as a result of his activities⁵⁴.

By this rule, the Directive channelled liability to a sole liable party; so that employees should not be liable as well as lenders not exercising operational control. Therefore, this definition needs more expansion and precision, is it always the case that the operator who pollutes the environment? Or are there any other potential parties who may by their activities cause the damage to the environment?

In answering this question it may be useful to cite the US Superfund approach in channeling liability. The U.S.A. Comprehensive Environmental Response,

⁵³ Article 2/6 of the Directive

⁵⁴ The definition adopted by the Directive is fairly the same definition adopted by the Lugano Convention 1993 which defined the polluter as a person exercising control over a dangerous activity.

Compensation, and Liability Act CERCLA have broadened the scope for imposing liability; under this Act, potentially responsible parties include: current owners and operators of a facility, owners and operators of a facility at the time the hazardous substances were disposed of, persons arranging for transport and disposal of hazardous substances, and transporters of hazardous substances. In the UK, the new Contaminated Land regime contained in section 57 of the environment Act 1995 adopt a very broad definition for the liable person, it defined him as appropriate person; and then it classified two categories of appropriate person: the Class A person, who is a polluter or someone who has “knowingly permitted” pollution leading to a site becoming contaminated, whereas Class B includes persons who are the present owner or occupier of the contaminated land⁵⁵.

As for the Directive, the restricted definition of operator also reduces the extent of liability imposed on a company. A broad definition of those who control an operation needs to apply in order to ensure that parent companies, where they exist, may be made liable where the operating company is insolvent.

In the case of environmental damage caused by multiple polluters, the Directive provides that Member States may either provide that the relevant operators are to be held jointly or severally liable for that damage, or that the competent authority is to apportion the share of the costs to be born by each operator on a fair and reasonable basis. However, operators who are able to establish the extent to which the damage results from their activities shall only bear the costs related to this part of the damage, and in the case of being jointly or severally liable, the national law concerning the rights of contribution or recourse shall apply to settle the financial liability among the liable operators⁵⁶.

4-The duties of the Competent Authority:

The Directive tends to public law approach and abandons the civil law mechanisms. The main aim of it is prevention and remedying environmental damage; therefore, this goal justifies the public law approach adopted by the Directive; because civil liability is

⁵⁵ See The Environment Act 1995, Section 57. Also the Water Resources Act 1991, s 85: offence of causing or knowingly permitting any polluting matter to enter “controlled waters”. For further reading in this subject see Hooley. R, “Lender liability for environmental damage”,(2001), 60 (2) C. L. J, pp 405-418

⁵⁶ Article 11 of the Directive on environmental liability with regard to the Prevention and Remedying of Environmental Damage

mainly concerned with compensation the victims for the damage they sustained, besides that civil liability major role is to protect private right, and this particular feature significantly limits the role of civil liability in environmental damage cases⁵⁷.

The Commission was aware of this limitation; therefore, it excluded traditional damage from the Directive scope, having in mind that this kind of damage is better dealt with at a domestic level and the fact that personal injury and damage to property is covered by civil liability or tort law under each member state's jurisdiction. Moreover, the application of the Directive is to a large extent entrusted to governmental agencies⁵⁸; where there is a threat of environmental damage occurring, the competent authority of the member state must require the operator to take the necessary preventive measures or take the measures itself and recover the costs⁵⁹, and where environmental damage has already occurred, the competent authority must require the operator to restore the damage, or restore it itself and recover the costs from that operator accordingly⁶⁰.

Moreover, the Directive imposes a residual obligation on the member state to take the necessary preventive or restorative measures regarding "orphan sites" that is to say, where the operator who caused the damage cannot be found or insolvent or not otherwise liable. This obligation has been opposed by the Member States since it could result in the Directive being shifted from a civil liability approach to administrative law⁶¹. This requirement however, has an administrative nature, but it can be justified by the need to prevent and avoid environmental damage from occurring or insure the restoration of the damaged environment.

5- The Scope of the Regime:

The Directive on environmental liability defined and determined the environmental damage covered by its provisions. It provides that "damage" means a directly or

⁵⁷ Wilde. M "Extending the role of tort as a means of environmental protection: an investigation of recent developments in the law of tort and the European Union. University of Brunel, 1999

⁵⁸B. Lucas. "The Proposed Environmental Liability Directive", (2002), 11 (2), *European Environmental Law Review*, pp 327-341

⁵⁹ Article 5 of the Proposed Directive

⁶⁰ Some writers criticised this approach on the bases that it may lead to an increase in disputes and further litigations because the Competent Authority is under the obligation to recover the costs of its action. See B. Lucas. "The Proposed Environmental Liability Directive", (2002), 11 (2), *European Environmental Law Review*, pp 327-341

⁶¹H. Elizabeth "The Environmental Liability Directive", (2002), 10 (1) *Journal of Environmental Law*, pp 3-10

indirectly occurring measurable adverse change in a natural resource and /or impairment of a natural resource service caused by any of the activity covered by this Directive”.

It further defined “imminent threat”; the term used frequently by its provisions as a sufficiently plausible risk that environmental damage will occur in the near future⁶². It also went on to define the term biodiversity damage when article 2/18 states that biodiversity damage includes (a) biodiversity damage which is any damage that seriously affects in an adverse manner the conservation status of biodiversity; (b) water damage adversely affecting ecological or chemical status of waters covered by the EC Water Framework Directive (e.g. rivers, groundwater); (c) land damage creating actual or potential harm to human health, from soil and subsoil contamination⁶³. Unlike the White Paper, the Directive did not cover traditional damage (personal and property damage) even if they were caused by environmental damage. The reason for this restriction is that, the EC is of the view that traditional damage is covered and compensated under each Member States’ domestic law.

Regarding environmental damage, the Directive opted to a narrow definition of “environmental damage’ since it confined the application of the proposal to areas and species covered by the Natura 2000 Network. These protected areas are or have to be designated by the Member States under the Wild Birds Directive of 1979 and the Habitats Directive of 1992.

Therefore, it is rather a restrictive approach to cover only those natural resources which are already protected by EC law, this area namely Natura 2000 will cover only around 10 per cent of the European Union’s land⁶⁴. Moreover, the narrowness of the proposed regime proved by limited approach adopted to cover environmental damage caused by Genetically Modified Organisms. However, some writers made the point that this limited approach will pave the way to common law to be developed to cover liability for harm caused by GMOs⁶⁵.

⁶² Article 2/5 and 6 of the Directive on environmental liability, 2003

⁶³ A wide definition for biodiversity is provided by the United Nations Convention on Biological Diversity 1992, Article 2.

⁶⁴ E. Brans “ EC Proposal for Environmental Liability Directive: Standing and Assessment of Damages”. (2002), 10 (4), *Journal of Environmental Liability*, pp 135-146

⁶⁵ C. Rodgers. “Liability for the Release of GMOs into the Environment: Exploring the Boundaries of Nuisance” (2003), 62 (2), C. L. J. pp 371-402 and also M. Cardwell. “The Release of Genetically

It is to be noted here that the Directive will only apply to significant environmental damage by virtue of Article 2/1 which sets out the threshold for harm to a protected species or natural habitats in order for the Directive to apply. The Directive defines environmental damage as follows:

- (a) Damage to protected species and natural habitats, which is any damage that has significant adverse effects on reaching or maintaining the favourable conservation status of such habitats or species
- (b) Water damage, which is any damage that significantly adversely affects the ecological, chemical and/or quantitative status and/or ecological potential, as defined in Directive 2000/60/EC, of the waters concerned
- (c) land damage, which is any land contamination that creates a significant risk of human health being adversely affected as a result of the direct or indirect introduction, in, on or under land, of substances, preparations, organisms or micro-organisms.

In all these forms of environmental damage, the significance of such effects is to be assessed with reference to the baseline condition, taking account of the criteria set out in Annex I. accordingly, the significance of the environmental damage is to be assessed by reference to the conservation status at the time of the damage, the services provided by the amenities they produce and their capacity for natural regeneration.

Annex 1 of the Directive set out some criteria for assessing significance of damage to protected species and natural habitats as follows: 1- The number of individuals, their density or the area covered,

2- The role of the particular individuals or of the damaged area in relation to the species or to the habitat conservation, the rarity of the species or habitat

3- The species' capacity for propagation, its viability or the habitat's capacity for natural regeneration

4- The species' or habitat's capacity, after damage has occurred, to recover within a short time, without any intervention other than increased protection measures, to a condition which leads, solely by virtue of the dynamics of the species or habitat, to a condition deemed equivalent or superior to the baseline condition.

5- Damage with a proven effect on human health must be classified as significant damage.

The Directive went on to provide that the following does not have to be classified as significant damage:

- 1-Negative variations that are smaller than natural fluctuations regarded as normal for the species or habitat in question,
- 2- Negative variations due to natural causes or resulting from intervention relating to the normal management of sites, as defined in habitat records or target documents or as carried on previously by owners or operators,
- 3- Damage to species or habitats for which it is established that they will recover, within a short time and without intervention, either to the baseline condition or to a condition which leads, solely by virtue of the dynamics of the species or habitat, to a condition deemed equivalent or superior to the baseline condition.

It is worth mentioning that the Directive excludes from its potential application environmental damage or imminent threat of such damage occurring arising from an incident in respect of which the liability or compensation is regulated by certain listed international agreements⁶⁶. Moreover, the Directive- Without prejudice to relevant national legislation- shall not give private parties a right of compensation as a consequence of environmental damage or of an imminent threat of such damage⁶⁷.

This approach of excluding compensation for pure economic loss -such as reduction of business due to adverse effects result from a pollution incident- is founded also under the German jurisdiction⁶⁸. Moreover, no reference has been made in the Directive to compensation for losing immaterial values of the environment as a result of environmental damage i.e. amenities and pleasant surroundings.

6- Types of Liability:

The Directive provides for a broad strict liability regime which will cover all categories of environmental damage such as damage that results from those activities that presents a risk to human health and the environment, as specified in Annex III⁶⁹.

These activities -which are defined by reference to relevant EU legislation-, are considered to represent inherently dangerous activities that present a risk to health and

⁶⁶ Article 4/2, 4/3 and 4/4 and Annex IV and V of the Directive

⁶⁷ Article 3/3 of the Directive

⁶⁸ Pfennigstorf. W, "How to deal with Damage to Natural Resources: Solutions in the German Environmental Liability Act of 1990", In "Harm to the Environment: The right to Compensation and the Assessment of Damage" edited by Wetterstein..P. 1997. Clarendon Press- Oxford, P 131-142.

⁶⁹ The Directive has six Annexes.

the environment. The activities include the operation of various industrial installations subject to authorisation under EU legislation, such as the IPPC Directive (96/61/EC), the Dangerous Substances Directive (76/464/EEC), and the Groundwater Directive (80/68/EEC). It also includes many waste management operations, the manufacture, use or release into the environment of various chemicals, the use or release of GMOs and the transport of certain dangerous or polluting goods⁷⁰.

However, damage to biodiversity resulting from non-Annex III activities will require fault or negligence on the part of the operator for liability to arise⁷¹. The commission justifies its view by asserting that annexes 1 activities are posed a potential or actual risk to man and environment that justify imposing strict liability for the damage resulted from these activities.

However, this differentiation received strong criticism because, critics believe that this distinction is invalid and impractical, they assert that the listed activities in annexes 1 may poses less risk than non-listed activities, or at least there is no difference in risk level between listed and non-listed activities⁷².

7- Causation under the Directive:

It is disappointing that the Directive does not pay the desired attention to the issue of causation in environmental damage cases. It only mentions causation while addressing the issue of cost allocation in cases of multiple parties'. Article 9 of the Directive states that: "This Directive is without prejudice to any provisions of national regulations concerning cost allocation in cases of multiple party causation especially concerning the apportionment of liability between the producer and the user of a product". However, it does not provide a specific rule regarding this point and leaves to Member States to decide what it find suitable regarding this issue, Article 11/ 2 of Directive state that:

"The duty to establish which operator has caused the damage or the imminent threat of damage, to assess the significance of the damage and to determine which remedial

⁷⁰ There are scientific uncertainties and ongoing debate regarding the harmfulness of GMOs, so that, the imposition of liability for damage resulted for the GMOs seems to be compatible of the precautionary principle.

⁷¹ B. Lucas "The Proposed Environmental Liability Directive", (2002), 11(12), *European Environmental Law Review*, pp 327-341

⁷² See B. Lucas "The Proposed Environmental Liability Directive", (2002), 11(12), *European Environmental Law Review*, pp 327-341

measures should be taken with reference to Annex II shall rest with the competent authority. To that effect, the competent authority shall be entitled to require the relevant operator to carry out his own assessment and to supply any information and data necessary”.

These soft wordings make no reversal or even alleviation in the standard of causation required to establish a case, it neither creates presumption of causation, nor it address’ the issue of causation to include all environmental damage cases covered by the Directive. All what the Directive do in this respect is that, leaving to the Member States the authority to decide in the case of multiple potentially defendants if they should bear the liability jointly or severally, and provide no alleviation of causation.

Furthermore, the Directive made it clear that due to the impossibility of establishing causal link between the damage and the activities of individual operators, its provisions will not apply for environmental damage caused by pollution of a widespread and diffuse character⁷³, this is understandable; because liability for environmental damage can only be effective if the person or entity responsible for the damage can be identified⁷⁴.

It is to be mentioned here that the White Paper on environmental liability did not specifically proposed a reversal of the burden of proof for establishing facts concerning the causal link, so one who makes allegations of damage should -according to the traditional requirement of causation- give some reasonable supporting evidence that these allegations are founded. However, the White Paper proposed one or other form of alleviation of the traditional burden of proof⁷⁵.

It was hoped that the final draft of the Directive will include some kind of alleviation in the issue of causation or at least to imitate the German approach in alleviating the burden of proof by means of creating a statutory presumption to apply in all environmental damage cases, this approach seems to be inclusive in scope, and justified

⁷³ See article 4/5 of the Directive. See also, J. Brain. “European Commission: Proposed for a framework Directive on Environmental Liability”. (2002), 14(1), *Journal of Environmental Law and Management*, pp 5-10

⁷⁴ J. Lammers “International Responsibility and Liability for Damage caused by Environmental Interferences”, (2001), 31(1), *Journal of Environmental Policy and Law*, pp 42-50

⁷⁵ Section 4.3 of the White Paper provide that “ The Community regime could contain one or other form of alleviation of the traditional burden of proof to be more precisely defined at a later stage”. See the White Paper on environmental liability. COM 2000. (66) final, 9th February 2000.

in the interest of justice to release the plaintiff in environmental cases from the heavy burden of proof.

8- Allowed defences:

Besides the general defences namely, armed conflict, hostilities, civil war or insurrection, and a natural phenomenon of exceptional, inevitable, and irresistible character⁷⁶, There are a number of defences available, including, controversially, compliance with regulatory permit, or as the Commission states “an emission or event expressly authorised by, and fully in accordance with the conditions of, an authorisation conferred by or given under applicable national laws and regulations which implement those legislative measures adopted by the Community specified in Annex III, as applied at the date of the emission or event”⁷⁷, and a “state of the art” defence⁷⁸.

Although not available if the operator has been negligent, the defence related to the compliance with a permit may add another drawback to the Directive effectiveness by providing the operators with a permit to pollute rather than creating an incentive to improve their environmental performance.

The most highly controversial defence is related to state of the art. Therefore, there is a defence for any “an emission or activity or any manner of using a product in the course of an activity which the operator demonstrates was not considered likely to cause environmental damage according to the state of scientific and technical knowledge at the time when the emission was released or the activity took place”. in its essence this defence is about foreseeability of the damage, the rule which the House of Lords laid down in *Cambridge Water Company v Eastern Counties Leather (1994)*. However, this defence may undermine the precautionary approach that should be regarded in any effective liability regime for environmental damage. However, these two defences are not available automatically; the Directive allows Member States the discretion to exempt an operator from liability to bear the cost of preventive or remedial action - under these defences- where the operator can demonstrate demonstrates that he was not at fault or negligent (Article 8/4 a and b of the Directive).

⁷⁶Article 4/1/a/b of the Directive

⁷⁷Article 8/4/a of the Directive

⁷⁸Article 8/4/b of the Directive

9- Standing:

The issue of standing received a different attention when the European Commission attempt to harmonies civil liability for environmental damage throughout Europe. There are subsequent two main related EU proposals in this regard, the White Paper on environmental liability 2000, and the Directive on environmental liability with regard to the prevention and remedying of environmental damage 2004. As for the first proposal, the White Paper differentiated between traditional and ecological damage, is the case of traditional damage the victims have the right to raise a claim with competent administrative or judicial bodies to safeguard their private interests or even to demand damage according to the applicable law.

The case of ecological damage or damage caused to the environment pre se has received different approach, the White Paper acknowledges that protection of the environment is a public interest and calls for an enhancement of the role of individuals and interest groups within the realm of environmental liability⁷⁹.

In this respect the White Paper suggested that while the Member States should be under the duty to ensure restoration of biodiversity damage, public interest groups should have the right to act if the state does not act or act improperly, but the White Paper did not specify the nature and the extent of this right whether it applies administratively or by means of judicial review or even by having a direct right to sue the polluters. Furthermore, the White Paper suggested that in urgent cases of damage, interest groups should be allowed to demand an injunction directly from the court.

However, the term “urgent cases” has to be clarified for the sake of certainty, although it might be difficult to draft a text with sufficient legal certainty to distinguish urgent from non-urgent cases, but urgent cases may refer to cases where environmental damage is imminent or irreversible.

⁷⁹ The White Paper also made reference to the Aarhus Convention on Access to Information, Public Participation in Decision- Making and Access to Justice in Environmental Matters. This Convention has been adopted and signed by the European Community in Aarhus – Denmark June 1998 and come into force on October 30th 2001. It states that “Every person has the right to live in an environment adequate to his/her health and well-being, and provide to an effective process regarding the issue of access to environmental information and justice, as well as public participation in environment decision-making”.

In a later stage the EC has adopted a Directive on environmental liability with regard to the prevention and remedying of environmental damage, this Directive dealt with the issue of standing in Article 12 of the Directive which provides that: "Natural or legal persons: (a) affected or likely to be affected by environmental damage or (b) having a sufficient interest in environmental decision making relating to the damage or, alternatively, (c) alleging the impairment of a right, where administrative procedural law of a Member State requires this as a precondition, shall be entitled to submit to the competent authority any observations relating to instances of environmental damage or an imminent threat of such damage of which they are aware and shall be entitled to request the competent authority to take action under this Directive".

However, the Directive made it clear that the term 'sufficient interest' shall be specified by reference to the national laws of the Member States; Article 12 of the Directive states that: "What constitutes a 'sufficient interest' and 'impairment of a right' shall be determined by the Member States". And then gives some criteria by which sufficient interest may be determined when it provides that: "To this end, the interest of any non-governmental organisation promoting environmental protection and meeting any requirements under national law shall be deemed sufficient for the purpose of subparagraph (b). Such organisations shall also be deemed to have rights capable of being impaired for the purpose of subparagraph (c)".

As far as the English law is concerned there is no legislative criteria provides any considerations by which 'sufficient interest' can be specified. However, the English Courts laid down some general criteria in the respect, such considerations are varied and include international nature and commitment of the organisation, its relevant expertise, being a consultee during the consultation process, high reputation, having a sufficient interest and long standing association with the subject matter, local interest, financial investments and the general importance of the subject matter.⁸⁰

The Directive dealt with the issue of standing not only for environmental interest groups, but also to any persons adversely affected to likely to be affected. This approach however fair, but it may have negative effects by granting special standing for individuals who may have take advantage of this right to support their own interest. The Directive anticipates such a potential and requires that any request for action shall

⁸⁰ *R v Inspectorate of pollution ex parte GREENPEACE LTD 1992*, and *R v. Secretary of State for the Environment Ex-parte Friends of the Earth and another*.

include all relevant information and data supporting it and then requires the competent authority to consider such request only if it show in a sufficiently plausible manner that an instance of environmental damage exists.

Moreover, the Directive when it defines the term “sufficient interest” in article 12 refers the national law of the Member States; so that, deciding whether environmental interest groups or non-governmental organisations have sufficient interest will depend to a large extent on the national laws of the member states, and consequently variations in this issue may appear among member states⁸¹.

Further to this limitation, the Directive allows Member States the discretion to limit the right to request action to circumstances where environmental damage has occurred and not extend this to circumstances where there is only an imminent threat of such damage (Article 12/5 of the Directive).

At the European level, there is a significant difference among the Member States in relation to the issue of standing in environmental damage cases. For example, France Germany and Spain do not recognise a right of standing for individuals or interest groups to claim compensation for damage caused to the unowned environment, while the Netherlands offer them a right to demand an injunction relief to prohibit or abate a damaging activity⁸². The Dutch approach in affording environmental interest organisations the right of standing to seek injunction where the interest they are promoting endangered by environmental damage is consistent with the international approach adopted in the Rio Declaration which calls for adopting effective access to judicial and administrative proceedings, including redress and remedy⁸³.

It is important that any environmental liability regime should contain clear harmonised rules on standing for public interest groups. To avoid these variations, the EC could list specific NGOs in the Directive -according to the minimum- standards laid down in the relevant legislations- as “potentially concerned parties” for the sake of certainty.

⁸¹ See Betlem. G. “Strict Environmental Liability and NGO Damages and Enforcement Claims: a Dutch and International Law Perspective”, (2001), 11(1), *European Environmental Law Review*, pp 314-221

⁸² Betlem. G, “Standing for Ecosystems- Going Dutch”, (1995), 54(1), C. L. J, pp153-170, See Also Study of civil liability systems for remedying environmental damage, Final Report, published in 1995 available on line at http://europa.eu.int/comm/environment/liability/civiliability_finalreport.pdf

⁸³ Rio Declaration 1992, Principle 10 (States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.)

In any event, it is regrettable that the Directive did not offer NGOs a direct right of standing to sue the polluter whose activities damaged the unowned environment. This particular issue would significantly weaken the implementation mechanism by which the objective of the proposal could be achieved.

Instead of enhancing the role of environmental interest groups, the Directive suggested given rather vague rights to environmental interest groups to request the competent authority to take the necessary action to prevent or remediate environmental damage. The substance and scope of this right is limited by virtue of the Directive wording; this right is about requesting the competent authority to act and not directly allow the person or qualified entities to take action themselves.

Moreover, the Directive refer to national laws of Member States to specify what is regarded as sufficient interest which may add a further criteria on those who are allowed to request action by the competent authority. One writer noted that "rather than setting out a private right of action in respect of environmental harm, the Directive seeks to enhance the powers of competent authority to require polluters to remedy environmental damage or to conduct works in default and recover costs from the polluter retrospectively"⁸⁴.

Environmental protection is, however, a diffuse interest on behalf of which individuals will not always act or will not be in a position to act. Entities with sufficient interest should therefore be given a special status so that they can properly contribute to the effective implementation of this Directive⁸⁵.

It becomes clear now that the new regime dose not go in line with what was included in the commission's White Paper, which stated, "Interest groups should have the right to ask the court for an injunction directly in order to halt the potential polluter activity and avoid further damage to the environment. They should be allowed, for this purpose, to sue the alleged polluter without going to the State first"⁸⁶.

Therefore, it can be fairly said that the Directive, did not satisfactorily address the issue of standing for environmental interest groups⁸⁷. It is wroth mentioning that while the

⁸⁴ M. Wilde, "Locus Standi in Environmental Torts and the Potential Influence of Human Rights Jurisprudence", (2003), 12(3), RECIEL, p 293

⁸⁵ Paragraph 22 of the explanatory memorandum of the Directive

⁸⁶ For further reading in this issue see J. Steele "Participation and deliberation in environmental law: exploring a problem-solving approach", (2001), 21(3), *Oxford Journal of Legal Studies*, pp 414-442.

⁸⁷ The final text of the Directive drops previous provision that would have allowed non-government organizations to take direct action against operators.

Directive was in its enactment process the European Parliament adopted a revised approach regarding the role of individuals and qualified entities in the enforcement of the proposed regime, the amended article confers individuals adversely affected by environmental damage and qualified entities a direct right to take a legal action against the operator⁸⁸. Notably this direct right is confined to cases where there is an imminent threat of damage to the environment. Unfortunately this amendment was not supported later in February 2004. Therefore, non-governmental organisations will be entitled to submit to the competent authority any observations relating to instances of environmental damage or an imminent threat of such damage of which they are aware and shall be entitled to request the competent authority to take action under this Directive. And further Article 13/1 of the Directive provides that: “the persons referred to in Article 12(1) shall have access to a court or other independent and impartial public body competent to review the procedural and substantive legality of the decisions, acts or failure to act of the competent authority under this Directive”. However, the Directive shall be without prejudice to any provisions of national law which regulate access to justice and those which require that administrative review procedures be exhausted prior to recourse to judicial proceedings⁸⁹.

10- Insurability:

Financial security, e.g. insurance, bank and parent company guarantees and pooling of funds, has been a very sensitive issue for both the EU Council and the European Parliament throughout the lengthy discussions on the Directive, mainly because the insurance market for these products is still in its infancy and does not, -at the moment at least-, cover the types of environmental damage covered by the Directive.

Although the European Commission admitted the importance of financial security for environmental liability, but it also admitted that insurance availability for environmental risks and especially for ecological damage is likely to develop gradually; the reasons behind that are the absence of widely accepted measurements techniques to quantify environmental damage and the fear that a compulsory insurance might not be easily available. Therefore the Directive did not suggest imposing compulsory insurance in the

⁸⁸ The European Parliament Legislative Resolution on the Proposal for a European Parliament and Council Directive on Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage (P5_TA-PROV (2003)0211, 14 May 2003).

⁸⁹ Article 13/2 of the Directive

potential EU environmental liability regime, rather, it provides for the voluntary use of financial security but requires member states to take measures to encourage the development of financial security instruments and markets⁹⁰.

This trend might weaken preventive incentives intended by the regime and as a result, polluters may find it cheaper to take risk of carrying out an activity and bearing the burden of being liable than to have insurance coverage in advance. Later in February 2004 conciliation reached by the European Parliament and the Council of Europe regarding some aspects of the Directive. The most important amendment relates to the issue of financial guarantees. It has been agreed that the European Commission will review this matter in a report six years after the entry into force of the Directive, considering the following aspects: the effectiveness of the Directive in terms of achieving remediation of damage, the availability at reasonable costs and on conditions of insurance and other types of financial security for activities covered by Annex III. The report shall also consider a gradual approach in developing possible mandatory financial security, a ceiling for liability and the exclusion of low risk activities from mandatory insuring. In the light of that report, and of an extended impact assessment, the European Commissions will decide whether to submit proposals for a system of harmonised mandatory financial security.

11. Restoration measures

Under the Directive, Annex 2 provide some instructions of how to remediate environmental damage covered by its provisions, the core of this instructions is the return of the damaged environment to its baseline condition; which means according to the Directive, the condition at the time of the damage of the natural resources and services that would have existed had the environmental damage not occurred, estimated on the basis of the best information available. In achieving this condition, the competent authority or the liable operator shall use historical date, reference date, control date, or data on incremental changes (e.g. number of dead animals), alone or in combination, as appropriate⁹¹. It's believed that such objective is achieved through the return of

⁹⁰ Article 14/1 of the Directive provides that: "Member States shall take measures to encourage the development of financial security instruments and markets by the appropriate economic and financial operators, including financial mechanisms in case of insolvency, with the aim of enabling operators to use financial guarantees to cover their responsibilities under this Directive".

⁹¹ Article 2 and Annexes II of Directive.

damaged habitats, species and other associated natural resources services or water concerned to baseline condition. As for polluted soil or subsoil which gives rise or pose a serious harm to human health, necessary measures shall be taken to control, contained, diminished or removed the relevant contaminants, so that polluted soil does not pose any serious harm or serious potential harm to human health. Although this baseline standard of restoration is the best way of remediation from an environmental perspective; the baseline standard is rather a theoretical requirement in some severe environmental damage cases where the ecological damage has irreversible character, i.e. the extinction of a rare species, or polluting underground water reserves beyond reparation by chemical toxic. Therefore, evaluating irreversible environmental damage in monetary terms will be the only feasible option of compensation.

9- Looking forward:

Although some of it needs tightening up and other parts require clarification, the EC Directive on Environmental Liability with regard to the Prevention and Remedying of Environmental Damage will make a considerable contribution towards achieving its primarily aims.

The scope of the Directive is somehow narrow, and tends to public law approach, the activities covered by the regime are of two types, one of the them listed in Annex III would be subject to strict liability under the defenses allowed by the Directive, whereas the second category of activities covered will attract a fault-based liability, it is feared that many other damaging activities remain uncovered.

The Directive does not cover diffuse pollution (pollution of widespread character) as long as it is possible to establish a causal link between the damage and certain activity. However, a number of operators within an industry or specific sector might have collectively contributed to environmental damage in question.

From a close view, it appears that a comprehensive environmental liability regime applicable throughout Europe will continue to raise many controversial issues. Although the new Directive made a significant step forward, it is highly problematic⁹²; The EC

⁹² B. Lucas "The Proposed Environmental Liability Directive", (2002),11(12), *European Environmental Law Review*, pp 327-341

will have the responsibility to strike a difficult balance among many considerations involved in the field of environmental protection.

It's worth mentioning that, the interest shown by the EC concerning civil environmental liability supports the idea that the EC admitted -for its part- the inability of the Member States civil laws in remedying environmental damage especially when it comes to ecological damage as such.

Member States will have three years to transpose the Directive into national law by April 2007. Whilst it is to be noted that existing UK legislation covers a wide range of the matters that constitute damage under the Directive. However, the Directive will impose even further financial burdens on UK industry and businesses. Biodiversity damage is one area that existing UK legislation does not comprehensively cover and where the UK government will need to adopt new legislation⁹³.

⁹³ F. Valerie. "The Environmental Liability Directive", (2004), 3, *Journal of Environmental Liability*, pp 101-115

Chapter Six:

Traditional liability rules and environmental damage: Deficiencies or Characteristics

1. Introduction:

2. Rationale of civil liability:

3. Fault under common law torts:

4. Foreseeability of the damage:

5. Causation and the burden of proof:

5.1 Some trends to alleviate the burden of proof:

6. Standing under traditional liability rules:

7. Defences allowed under traditional liability rules:

8. Environmental damages

8.1. Recoverability of damages under traditional liability rules:

9. Judicial reluctance towards developing traditional rules in environmental context:

1. Introduction:

This chapter will bring together the main legal problems which traditional civil liability rules raises when it is to be applied to deal with environmental damage, and the judicial approach adopted both in the UK and Jordan to deal with these legal issues. These issues can be summarised as follows:

- 1- the rationale of civil liability; purposes of civil liability
- 2- fault and foreseeability of the damage
- 3- causation and the burden of proof
- 4- standing especially when environmental damage affects the environment as such
- 5- defences allowed in environmental damage cases
- 6- Kinds of environmental damage, and the recoverability of environmental damages.

2. Rationale of civil liability:

Tort law is mainly concerned with interpersonal relationships¹. This feature underpins all doctrines of liability in common law, it is about compensating victims who suffered damage because of other's wrongdoings which interfere with their rights. Therefore, the protection available under traditional liability rules is confined to those with proprietary right or interest in land; which provides rather a limited protection to wider public if common law is to be used as means of environmental protection.

The same feature applies to civil liability under the Jordanian jurisdiction. The main aim of civil liability is to compensate victims of civil wrongdoings. And without damage being caused to a certain plaintiff, no compensation is to be award since Article 256 of the Jordanian Civil Code put emphasis on the damage rather than anything else to trigger liability². Moreover, Unlike nuisance, trespass, and the rule of Ryland's v Fletcher which all protects proprietary rights and interest in land, civil

¹Therefore, a person cannot be held liable for polluting his own land. See Cane, P "Using Tort Law to Enforce Environmental Regulations", (2002), 41(3), *Washburn Law journal*, p 440, Also available online at <http://washburnlaw.edu/wlj/41-3/articles/cane.pdf>

² Article 256 of the JCC states that: "Any harm done to another shall render the actor, even though not a person of discretion, liable to make good the harm"

protection available under Jordanian Civil Code is available to those who sustained an invasion to legitimate interest, which include physical well-being, proprietary rights and interest in land.

As a result, applying traditional liability rules to environmental damage may not provide a means by which ecological damage can be restored, the compensation under traditional liability rules is payable to the plaintiff who suffered the injury, but no compensation will be imposed when the environment *pre se* suffers as a result of the defendant's conduct.

Moreover, apart from the availability of injunctive relief- albeit limited- tort law performs a reactive role; tort generally interferes after the occurrence of damage to make the defendant compensate for the damage resulted from his conduct. Therefore, tort law is not fully compatible with the precautionary principle that is said to be a cornerstone in any wider environmental protection regime³.

This reactive nature has been highlighted by some writers who think environmental protection is best tackled by proactive measures⁴. However, it is to be mentioned though that, having a control mechanism that performs reactively can be more beneficial and efficient than setting regulatory standard in advance to handle environmental problems⁵. To some extent this argument can be agreed with; because of the pragmatic manner in which tort law develops may equipped it with a practical ability to deal with all new changes and difficulties presented by new kinds of damage, but it remains true that precaution in environmental filed should be primarily targeted, putting aside that it can be cheaper to prevent environmental damage in advance than to remedy or restore it if such restoration is feasible or even possible at all due to the irreversibility of some kinds of environmental damage.

In Jordan, environmental liability is widely governed by public law mechanisms; this may be due to the fact that, environmental problems facing Jordan are the result of natural, demographic, and political factors rather than industrial factor. This fact is thought to make public law mechanisms more suitable and renders the role of civil liability marginal in solving these issues⁶; because, the public law can provide a

³Article 3 of the Jordanian Act to Regulate the Courts of First Instance 1954 which allows the court to order an injunctive as a preventative measure to prevent potential damage from being inflicted

⁴ See generally Bell, S & McGillivray, D "Environmental Law" 5th edition BlackStone Press Limited, 2000, p 279

⁵ L. Kaplow and S. Shavell, "Property Rules versus Liability Rules: An Economic Analysis", (1996), 109, Harvard Law Review, p 713

⁶ For more about environmental problems in Jordan, see Chapter 3 of the thesis

legislative standard of command and control which help avoiding the occurrence of environmental problems or alleviating its effects if occurred.

Above all, torts apply to environmental damage are to different degrees fault-based; this particular feature makes tort law a weak instrument of implementing the polluter pays principle.

3. Fault under common law torts:

Having examined all torts available on environmental damage cases, one might ask is there any strict liability tort that can be applied to liability for environmental damage? Negligence clearly requires a fault committed by the defendant, whereas, other common law doctrines -to say the least- are varied in their level of strictness; the English judicial approach reveals that fault of certain level is required in all common law torts. Even when the courts require the foreseeability of the damage complained of, the defendant failure to foresee that damage can be regarded as a fault. The general trend adopted by the English courts is to minify the application of strict liability in tort actions⁷

In *Transco plc v Stockport Metropolitan Borough Council* [2003], Lord Bingham stated that: “there is a category of cases, however small it may be, in which it seems just to impose liability even in the absence of fault”, his Lordship went on to say: “An occupier of land who can show that another occupier of land has brought or kept on his land an exceptionally dangerous or mischievous thing in extraordinary or unusual circumstances is in my opinion entitled to recover compensation from that occupier for any damage caused to his property interest by the escape of that thing, subject to defences of Act of God or of a stranger, without the need to prove negligence”⁸. Therefore, it can be said that liability under the rule in *Ryland’s v Fletcher* is one of strict liability in the sense that the defendant could be held liable where there was an escape occurring in the course of the non-natural usage of land notwithstanding that he has exercised all due care to prevent the escape from occurring.

Despite this view, it is still obvious that tort law is generally a fault-based system, and “to an English tort lawyer strict liability remains something exceptional rather than

⁷ For further discussion in this regard see D. Howarth “Muddying the Waters: Tort Law and the Environment from an English Perspective”, (2002), 41, *Washburn Law Journal*, pp 469-513

⁸ *Transco plc v Stockport Metropolitan Borough Council* [2003] UKHL 61

something which is of widespread applicability”⁹. However, English legal system applies a strict liability regime in relation with some environmental damages i.e. nuclear industry and contaminated land the new regime 1995¹⁰. It is worth mentioning however, that “English courts are hostile to the concept that statutory provisions give rise to private rights of action”¹¹. And if this is the case; one should raise doubt about the willingness of the English courts to apply strict liability even if such liability is to be imposed by Parliament.

As far as environmental damage concerned, “holding polluters strictly liable for the harms their activities cause may provide them with an incentive to develop more effective pollution control devices and an incentive to relocate, change the scale of operation or perhaps to exit the ultra-dangerous industry altogether”¹².

As a result strict liability for environmental damage is a widely accepted approach¹³. However, opponents to strict liability believe that “the best explanation for strict liability regimes of non-contractual liability is political and psychological rather than legal policy and principle”¹⁴. However, as we noted before, strict liability is likely to create more incentives for operators to avoid causing damage, since they will be liable without committing fault; they may invest more money in research to find out environmentally friendly technologies. Moreover, strict liability accords more closely with the polluter pay principle than fault based liability because it requires the polluter to internalise the pollution cost¹⁵.

The importance of having a strict liability regime for environmental damage lies in the fact that environmental damage does not always occur as a result of deliberate or careless actions of polluters, and that the compliance of certain standard of care does

⁹ Wetterstein. P, “Harm to the Environment: the Right to Compensation and the Assessment of Damages” edited by Wetterstein. P. Clarendon press 1997. p 19

¹⁰ See Lee. M, “Civil liability of the Nuclear Industry”, (2000), 12(3), *Journal of Environmental Law*, p 318

¹¹ D. Howarth “Muddying the Waters: Tort Law and the Environment from an English Perspective”, (2002), 41, *Washburn Law Journal*, p 491

¹² See G. Marlow. “Common Law, Property Rights and the Environment: A Comparative Analysis of Historical Developments in the United States and England, and a Model for the Future”. (1997), 30, *Cornell International Law Journal*, p 541

¹³ See Nell, Martin & Richter, Andreas, “The Design of Liability Rules for Highly Risky Activities: Is Strict Liability the better Solution”, Working papers on risk and insurance, Hamburg University, 2001.

¹⁴ P. Cane “Are Environmental Harms Special?”, (2001), 13(1), *Journal of Environmental Law*, pp 3-20

¹⁵ Wilde, M “Extending the Role of Tort as a means of Environmental Protection: an Investigation of recent Development in the Law of Tort and European Union” Brunel university, 1999 at p 158

not necessarily prevent that damage for occurring¹⁶, therefore, there will be a need for a regime to ensure compensation for victims of environmental damage or at least that a person responsible for that damage is made to pay for remediatding and restoring the damaged environment.

In Jordan, despite some rulings where the Jordanian Court of Cassation surprisingly required fault in the defendant's part¹⁷, the Jordanian Civil Code adopts a strict liability regime which applies to all kinds of damage including environmental damage. However, due to the lack of environmental education and the magnitude of environmental damage itself; there are rather few cases which have environmental implications ruled by the Jordanian courts.

In the UK the situation is different; there are many torts which have potential application in environmental damage cases. However, all of these torts to different extents are influenced by fault-based theories¹⁸. Nuisance for example is considered to be a strict liability tort. However, Lord Wilberforce said in *Goldman v Hargrave* [1967]: "... the tort of nuisance, uncertain in its boundary, may comprise a wide variety of situations, in some of which negligence plays no part, in others of which it is decisive"¹⁹.

Moreover, the fact that the defendant will be liable even though he have exercised reasonable care and skill to avoid it, does not alleviate the fact that many requirements are to be met before liability imposed on him. The reasonableness test with its ramifications and the foreseeability of damage are without doubt weakening the strict basis of liability. In my view, to be strict; liability should be imposed insofar as the defendant's conduct resulted in the plaintiff's injury; any more requirements on the defendant's conduct will move liability closer from being strict to a fault based liability. For example, if liability under nuisance is to be imposed only if the defendant act was not reasonable on the circumstances; this means that his unreasonableness is his fault; for if he acted reasonably there will be no liability even if his reasonable conduct caused an injury for the plaintiff. Under the reasonableness

¹⁶ Bell, S & McGillivray, D "Environmental Law" 5th edition BlackStone Press Limited, 2000, p 279 and also Wilde, M "Extending the Role of Tort as a means of Environmental Protection: an Investigation of recent Development in the Law of Tort and European Union" Brunel university, 1999 at p 157

¹⁷ *The Jordanian Court of Cassation 316/96 Law Report 1996*, p 406, also Cases No 380/ 1988 and 965/1990), see pages 105 and 106

¹⁸ D. Howarth "Muddying the Waters: Tort Law and the Environment from an English Perspective", (2002), 41, *Washburn Law Journal*, p 490

¹⁹ *Goldman v Hargrave* [1967] 1 AC 645, 657

test, there is a standard of reasonableness which if the defendants failed to comply with, he would be liable under nuisance. This analysis brings nuisance closer under a fault-based liability realm. Therefore, Lord Hoffmann was right in *Transco* when his Lordship made an interesting point by saying: “Liability in nuisance is strict in the sense that one has no right to carry on an activity which unreasonably interferes with a neighbour’s use of land merely because one is doing it with all reasonable care. If it cannot be done without causing an unreasonable interference, it cannot be done at all”²⁰; it is only in that sense that liability can be strict.

Turning to the European Directive on Environmental Liability, it provides for strict liability for certain biodiversity damage caused by listed activities in Annex III of the Directive and fault-based liability for other biodiversity damage caused by non-Annex III activities²¹.

4. Foreseeability of the damage:

Foreseeability of damage is now a prerequisite for liability under nuisance and the rule in *Ryland’s v Fletcher* as well as negligence²². The essence of foreseeability is that, the defendant will only be liable if he would have foreseen the damage resulted from his conduct. In *Cambridge Water Company*, if *Eastern Counties Leather* could have foreseen the pollution in Cambridge borehole, then it would be liable. However, the House of Lords held that the polluter “*Counties Leather*” was not liable on the basis that the consequences of the escape were not foreseeable. In that case, their Lordships considered that the pollution complained of was not foreseeable in the 1970s when environmental knowledge was much less developed, whereas such damage might be held to be foreseeable under more recent legislation and with the current level of scientific environmental knowledge. Moreover, in *Wagon Mound No 2*²³, the Privy Council laid down the test of remoteness when it rejected to hold the

²⁰ *Transco plc v Stockport Metropolitan Borough Council* [2003] UKHL 61

²¹ Article 3 of the Directive states that: “1. This Directive shall apply to: (a) environmental damage caused by any of the occupational activities listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities; (b) damage to protected species and natural habitats caused by any occupational activities other than those listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities, whenever the operator has been at fault or negligent.

²² *Cambridge Water Company Ltd v Eastern Counties Leather plc* [1994] 2 AC 264

²³ The wind and tide carried the oil beneath a wharf where welding operations were being carried on by employees. After being advised that they could safely weld, the employees continued their work. Some 55 to 60 hours after the original discharge, molten metal set some waste floating in the oil on fire. The flames quickly developed into a large fire which severely damaged the wharf.

defendant liable for such unreasonable foreseeable damage. The Court found it also important to show that the plaintiff's injury falls within the consequences of the defendant's conduct and it is factually not too remote, this means that the liability will not be imposed because of consequences which the defendant could not have reasonably foreseen. Therefore, it ruled that "It is not sufficient that the injury suffered by the respondents' vessels was the direct result of the nuisance if that injury was in the relevant sense unforeseeable and that the defendant will only be liable for damage that is reasonably foreseeable as a consequence of the negligent act. The Court considered that foreseeable damage has to be "real or very likely" not far-fetched or fanciful"²⁴.

In environmental damage cases, applying such requirement may be considered as a contradiction of the precautionary principle; because it allows the defendant to argue that given the circumstances involved and the state of scientific knowledge, he was unable to foresee the kind of damage resulted. This in turn opens the door to adopt a controversial defence, namely the state of art defence²⁵.

Foreseeability of the damage -as understood by the English Courts- is not required under the Jordanian Civil Code. Therefore, the defendant will be held liable for the damage resulted from his injurious conduct provided that this damage -in the circumstances involved- is considered to the natural result of his conduct²⁶. Although a certain degree of remoteness should be existed between the tortfeasor's conduct and the damage for which the plaintiff demand compensation, but this degree of remoteness has be interpreted by the Jordanian Court of Cassation to mean that the defendant will be liable only for injurious result which is considered by the ordinary man to be the result of his conduct²⁷.

Environmental damage has many characteristics which limit the ability to foresee the occurrence of such damage; some kind of environmental harms are latent in their

²⁴ Overseas Tankship (UK) Ltd v Miller Steamship Co Pty Ltd, *The Wagon Mound* (No 2) (1967) 1 A.C 617

²⁵ As seen before, Article 8/4/a and b of the EC Directive on Environmental Liability provides to allow such defence.

²⁶ Article 266 of the JCC provides that: "Compensation shall be estimated by the amount of the damage inflicted on the injured person and his loss of profit provided that this loss shall be the natural result of the injurious act

²⁷ *The Court of Cassation*, 246/1997, *Law Report*, December 1997, p 920

nature and require long time to appear. Others are resulted in certain illnesses but scientific knowledge does not provide conclusive evidence that such damage caused the plaintiff illness. Besides the fact that environmental damage may be the result of interaction among multiple sources which make it hard to determine the contribution of every single factor to the damage caused.

5. Causation and the burden of Proof:

In the UK and Jordan, civil liability for environmental damage is mainly governed by the traditional rules both in common law and the Jordanian Civil Code. Therefore, the standard of causation required to establish the liability is that required in civil liability cases in general, which mean that, the plaintiff should prove on the balance of probabilities that his injury was that result if the defendant's conduct²⁸.

As we noticed before, in order to apply this standard of causation, the courts generally apply the 'but of test' which provides that causation is established, If "but for" the defendant's conduct, the plaintiff would not have suffered the loss in question²⁹. It is obvious that the balance of probabilities based on the 'but for test' may present a hurdle to the plaintiff in his endeavour to establish causation; in environmental damage cases given the long latency period of some environmental harms and the fact that scientific knowledge may provide less certainty as for the cause of the damage especially where more than one defendants contribute to the damage complained of. This hurdle has been proved to exist in complex medical cases³⁰.

However, the House of Lords shown some flexibility to alleviate the orthodox principles of causation and took a broader view of causation. In *McGhee v National Coal Board* [1973] it was held that the making of material contribution to the risk of injury was sufficient to establish causation. Lord Reid ruled that: "it has often been said that the legal concept of causation is not based on logic or philosophy. It is based on the practical way in which the ordinary man's mind works in the everyday affairs of life. From a broad and practical viewpoint I can see no substantial difference

²⁸ *Bonnington Castings Ltd v Wardlaw* [1956] AC 613

²⁹ *Reay v British Nuclear Fuels Plc* (1994) 5 Med LR 1, *Barnett v Chelsea & Kensington Hospital Management Committee* [1969] 1 QB 428, *Hotson v East Berkshire Area Health Authority* [1987] AC 750

³⁰ It has been said that: "The 'but for' test gives rise to a well-known difficulty in cases where there are two or more acts or events which would each be sufficient to bring about the plaintiff's injury. The application of the test gives the result, contrary to common sense, that neither is a cause: See *Winfield and Jolowicz*, "Tort" 1989, , 13th Ed p. 134.

between saying that what the respondents did materially increase the risk of injury to the appellant and saying that what the respondents did make a material contribution to his injury”³¹.

A more liberal step has been taken by the House of Lord in *Fairchild v Glenhaven Funeral Services Ltd and others* [2002] in which the plaintiffs contracted Mesothelioma after occupational exposure to asbestos in the course of periods of employment with more than one employer who were in breach of their duty to provide safely equipments. However, medical science cannot support the suggestion that any of those defendants breach was the cause of Mesothelioma.

As seen before, the House of Lords held that “In these circumstances a breach of duty by the defendant which increases or contributes to the risk of the disease is treated as equivalent to a breach which makes a material contribution to the onset of the disease”³². Their Lordships noticed that in the particular circumstances of these cases, the rigid application of the ‘but for’ rule worked injustice, so the rules of causation should be applied with sufficient flexibility to allow the claims to succeed³³.

Therefore, they considered that a breach of duty by the defendant which increases or contributes to the risk of the disease is to be treated as equivalent to a breach which makes a material contribution to the onset of the disease. However, their Lordships emphasised that the ‘but for’ rule remains in full force for the majority of claims and there is no weakening of the rules of general application in ordinary cases.

This decision is of great interest, and it complies with the precautionary principle in alleviating the burden of proof required in the case of scientific uncertainty³⁴. However, it is of limited practical significance; since it will be applied only to mesothelioma cases. It is clearly stated in all of their Lordships’ speeches that this is a ruling whose application should be very narrowly contained to closely analogous facts. For example, Lord Bingham was clear that the ruling applied only where:

³¹ *McGhee v National Coal Board* [1973] 1 WLR 1, *Bonnington Castings Ltd v Wardlaw* [1956] AC 613

³² *Fairchild v Glenhaven Funeral Services Ltd and others* [2002] 3 WLR 89

³³ Lord Hoffman for example considered that a rule requiring a link to be demonstrated between the defendants’ wrongdoing and the claimants’ disease would, in multiple employer cases, empty the duty of care of any content.

³⁴ The precautionary principle suggests that the burden of proof could be shifted to be on the polluter to prove that his activity is harmless rather than on the victim to prove the harmfulness of the polluter activity.

- “(1) C was employed at different times and for differing periods by both A and B, and
- (2) A and B were both subject to a duty to take reasonable care or to take all practicable measures to prevent C inhaling asbestos dust because of the known risk that asbestos dust (if inhaled) might cause a mesothelioma, and
- (3) both A and B were in breach of that duty in relation to C during the periods of C’s employment by each of them with the result that during both periods C inhaled excessive quantities of asbestos dust³⁵, and
- (4) C is found to be suffering from a mesothelioma, and
- (5) any cause of C’s mesothelioma other than the inhalation of asbestos dust at work can be effectively discounted, but
- (6) C cannot (because of the current limits of human science) prove, on the balance of probabilities, that his mesothelioma was the result of his inhaling asbestos dust during his employment by A or during his employment by B or during his employment by A and B taken together”³⁶.

Therefore, a question may be asked about the applicability of such principle laid down in *Fairchild* in cases where a sole responsible defendant by his negligence contributed to the risk that the plaintiff may contract a disease such was the case in *Graham & Graham v. Rechem International Ltd* [1995], where the court applied the traditional rule in causation and the plaintiff failed to prove in the balance of probabilities that the emissions from the defendant’s incinerator caused damage to their chattel³⁷.

Moreover, policy considerations played an extremely important role in this ruling. The speeches of their Lordships are heavily scattered with references to fairness, justice, and common sense. Lord Bingham pointed out that “in the special circumstances of such a case, principle, authority or policy requires or justifies a modified approach to proof of causation... Although it could properly be said to be unjust to impose liability on a party who had not been shown, even on the balance of

³⁵ Notably the balance made by the House of Lords favoured the plaintiffs, mainly because each defendant has been found to be in breach of duty.

³⁶ *Fairchild v Glenhaven Funeral Services Ltd and others* [2002] 3 WLR 89

³⁷ *Graham & Graham v. Rechem International Ltd*. 1995.7 ELM 175

probabilities, to have caused the damage complained of, such injustice as might be involved in imposing liability on a duty-breaking employer was heavily outweighed by the injustice of denying redress to a victim"³⁸. Therefore, the strict ratio of the decision is limited to the particular facts of Asbestos related disease cases and cases involved medical illness resulted from an exposure to a substance where the responsible parties are found to be in breach of their duty to provide the adequate safety equipments to prevent such exposure or to alleviate its adverse effects but the plaintiff due to scientific uncertainty can not prove on the balance of probabilities which defendant have caused the his injury.

It remains to be seen if such liberal approach adopted by the House of Lords in Fairchild case toward causation will be confined to cases where medical knowledge is still undeveloped enough to provide with certainty a plausible casual link, or will be applied in cases where a single defendant –employer- is responsible for the plaintiff's injury and the limits of medical science prevent the plaintiff from proving the traditional causal link, and more importantly, whether this approach will lead to a general reassessment of traditional liability principles in environmental damage cases.

In Jordan, traditional rules of causation under the Jordanian Civil Code require the plaintiff to show on the balance of probabilities that his injury is the 'natural result' of the defendant's conduct. The law do not provide for a statutory presumption of causation to alleviate of reverse the burden of proof. However, the law stipulates that the damage sustained by the plaintiff should be the 'natural result' of the defendant injurious conduct. This rule will also apply in the case where multiple defendants are responsible for the plaintiff's injury. In this case each defendant will be held liable for the injury sustained unless he can prove the extent damage attributable to his injurious conduct³⁹.

³⁸ *Fairchild v Glenhaven Funeral Services Ltd and others* [2002] 3 WLR 89

³⁹ Article 265 of JCC read as follows: "If the persons responsible for the injurious act shall be several, every one of them shall be liable for his share therein and the court may rule between them severally or jointly.

5.1 Some trends to alleviate the burden of proof:

Some countries understand that the traditional burden of proof in environmental damage cases presents a complicated challenge to the plaintiff, and accordingly it enacts special rules to ease this burden. The German Environmental Liability Act 1990 provides a statutory presumption that defendant's conduct is the cause of plaintiff's injury but he needs only to show that the defendant's emit is suitable to cause his injury in the circumstances involved, and for the defendant to escape liability, he ought to prove that his activity does not caused the plaintiff any injury, or that a different circumstance is also capable of causing the damage in question⁴⁰. By doing so, this presumption inverts the traditional rule that requires the plaintiff to prove causality⁴¹. The introduction of "presumption of causation" is the core of this Act. Consequently, the injured party has only to prove the suitability of defendant's plant to cause the ensuing damage, and the correlation between the emissions and specific damage that he sustained⁴².

Notably, in the case of several defendants, article 830/1 of German Civil Code states "If several persons have caused damage by an unlawful act committed in common, each is responsible for the damage. The same rule applies if it cannot be discovered which of several participants has caused the damage by his act".

Others environmental regimes such as The Austrian Atomic Act 1999 make a presumption of causation, it provides that victim of injury from a nuclear installation or material, or radionuclides needs only show the probability that his body was exposed to ionising radiation emanating from the defendant's nuclear installation or material, or from the radionuclides of which he had control⁴³.

No such statutory presumption of causation exists under the English or Jordanian legislations, having in mind that the English courts -as seen above- are aware of such

⁴⁰See Pfennigstorf, W. "How to deal with Damage to Natural Resources: Solutions in the German Environmental Liability Act of 1990". In "Harm to the Environment: The Right to Compensation and the Assessment of Damage" edited by Wetterstein..P, 1997, Clarendon Press- Oxford, p 131-142

⁴¹In *McGhee v National Coal Board [1973]*, Lord Wilberforce took a wider approach, holding that the burden of proof should be shifted; so that each defendant is required to prove on the balance of probabilities that his negligence did not cause the claimant's injuries.

⁴²Study of Civil Liability Systems for Remedying Environmental Damage, Final Report, published in 1995 available on line at http://europa.eu.int/comm/environment/liability/civiliability_finalreport.pdf

⁴³ See Posch, W. "New Developments in the Law of Civil Liability for Nuclear Damage. Spearheaded by Austria: From Privileges for Nuclear Industry to a True Protection of Mankind and the Environment", (1998), 7(3), *Journal of Environmental Liability*, p 83

problem and they show kind of flexibility to ease the burden of proof. It is to be mentioned the European Directive on Environmental Liability 2004, does not comply with the suggestion included in the White Paper on Environmental Liability which propose some kind of alleviation for the traditional burden of proof. Therefore, the traditional rules of causation are to be applied in the case of biodiversity damage covered by the Directive.

6. Standing under traditional liability rules:

As we noticed through out the previous chapters, civil liability for environmental damage is fundamentally dominated by traditional compensation doctrines; this observation applies to common law and civil law jurisdictions⁴⁴. As result, the right to claim damage for environmental harm has been subjected to the traditional rules of standing.

Standing or *Locus standi standi* is of vital importance to individuals seeking compensation in environmental cases; as it opens access to justice, and in environmental damage cases, standing emerges as one of the most controversial issues, because in many instances, environmental harm affects not only a private individual but society as a whole by its damaging effects on the environment. Locus standi means that a legal standing is required for a party seeking to bring a case before courts for redress.

In its deep roots, tort law is designed to protect private rights of individuals and apart from negligence; property right plays a vital role in deciding the issue of standing in most torts. In negligence, a duty of care only exists according to the principle of proximity. Thus a crucial question arises: Who is entitled to claim compensation for harm to unowned environmental resources. Are environmental interest groups entitled to such a right? And on what basis do these groups have this right, if it has a right of standing at all?

The significance of standing of interest groups becomes more pressing especially in the present time where environmental problems are not confined to a few individuals. The fact that environmental pollution assumed greater magnitude, make the number of persons affected also grew large, sometimes extending to all residents of a local

⁴⁴ There are some few exceptions where civil liability for environmental damage is regulated by special acts like in Germany, Sweden and the United States.

area or at certain times affecting even a bigger area which may include unowned environment, natural resources, or wild life components namely flora and fauna . In such cases those who seek legal redress for their damage are confronted by highly cost and time consuming litigations, and more importantly they lack standing to sue polluters for damage which affect the environment *pre se*.

In Jordan, individuals and non-governmental organisations are not conferred standing to sue polluters, and unless they suffered damage to their properties or legitimate interest as a result of environmental damage; courts will strike out their case on the ground that they do not have standing to claim compensation beyond their legitimate interests. One may argue that environmental protection can be seen as a legitimate interest for every citizen or entity, and indeed such argument is right. However, in Jordan legal protection need to be codified, and neither the Jordanian Constitution, nor any other legislation confer citizens the right to a healthy and unpolluted environment. Therefore, it is hoped that certain provision to that effect is to be added to the Jordanian Constitution or the Jordanian Act for the Protection of the Environment.

As for the UK, examining the English legislations shows that, no right of standing has been offered to environmental groups or individuals to sue the polluters and claim compensation for environmental damage on behalf of the society at large when the damage affects the unowned environment. In this regard we can cite a paragraph contained in the Government's policy document on contaminated land where it was stated that "it would be inappropriate to try to extend the concept of common law by statute to include the compensation for damage to the unowned environment or to give special standing in that respect for non-Governmental Organisations (NGOs) lacking an interest in a case"⁴⁵.

This is the case under civil liability, but there is another administrative way that individuals and interest groups may seek to challenge a decision to abate a certain activity which adversely affects the environment, namely the judicial review; which is, a procedure by which an applicant can request the court to review a decision of an administrative or governmental entity such as public departments or agencies which are responsible for environmental enforcement.

⁴⁵Paragraph 6.1.7 of the "Framework for Contaminated Land", 1994

English courts have no consistent record of granting standing to environmental groups in cases of reviewing environmental decisions made by administrative agencies. In *R v. Secretary of State for the Environment, ex-parte Rose Theatre Co Ltd*, in this case the applicants, were a company of citizens - consisted of archeologists, artists and actors -interested in the preservation of the relics of Rose theatre where Shakespearean and Marlow plays were staged- challenged the decision of the Secretary of State for the Environment which did not schedule the remnants of Rose Theatre under the Ancient Monuments and Archeological areas Act 1979. The court held that when an individual member of the applicant company had no standing, the agglomeration of individuals cannot claim such a standing.

However, the courts have recently been much less rigid on the issue of "locus standi", such an approach can be seen in the case of *R v Inspectorate of pollution ex parte Greenpeace Ltd 1992*. In this case, the environmental organisation, Greenpeace challenged Her Majesty's Inspectorate of Pollution decision to allow testing of THORP at Sellafield; the court decided that Greenpeace had locus standi to challenge the decision, in granting *locus standi* to Greenpeace, The court considered its international nature, commitment and expertise. Moreover, the fact that Greenpeace was one of the consultees during the consultation process was important in granting such standing. "Friends of the Earth society" (FOE) is another major environmental organisation which was permitted to sue in *R v. Secretary of State for the Environment Ex-parte Friends of the Earth and another*. The court granted standing to FOE to challenge the alleged failure of the Secretary of State to enforce EC Drinking water Directive No.80/778/EC. According to the court, "The friends of the Earth is a company of high reputation, founded in 1971 and having relevant expertise, the court considered these criteria as being sufficient to grant standing".

Analysis of the above cases discloses that the courts have been assessing the question of standing of environmental organisations using varying considerations such as their sufficient interest and long standing association with the subject matter, status as consultees during the planning process, local interest, financial investments and the general importance of the subject matter. Although the general trend in the approach of English courts towards *locus standi* of environmental associations is favourable, a consistent policy in this regard is lacking, and the fact that the environment in the

present time consists a vital concern of all human beings, such organisations should be given a right to be heard in proceedings of judicial review relating to the environment. Further more, it will be of great importance to consider granting environmental interest groups standing to claim damage when environmental harms affects unowned environment.

Under the European Directive on Environmental Liability, Article 12 offer any natural or legal person who affected or likely to be affected by environmental damage or and have sufficient interest in environmental decision making relating to the damage or, alternatively alleging the impairment of a right, -where administrative procedural law of a Member State requires this as a precondition- a right to submit to the competent authority any observations relating to instances of environmental damage or an imminent threat of such damage of which they are aware and a right to request the competent authority to take action under this Directive⁴⁶. Although, this right fall below the desired active role of individuals and environmental interest groups in environmental protection, and is restricted by many conditions such as 'affected or likely to be affected', 'having sufficient interest in environmental decision making' or 'alleging the impairment of a right' and the authority given to Member States to ignore such request in the case of imminent threat of damage⁴⁷, but it provides for some kind of involvement to individuals and NGOs in environmental protection process, and if proved to be effective it will certainly enhance the implementation of the Directive and the wider public participation in environmental matters in general.

7. Defenses allowed under traditional liability rules:

As we have seen above, liability under traditional rules is mainly fault-based. However, to some extent, liability under the tort of nuisance and the rule in *Ryland's v Fletcher* is strict in the sense that the defendant will be liable even though he took the utmost care to avoid causing damage or as Lord Hoffmann put it in *Transco plc v Stockport Metropolitan Borough Council*[2003]: "...Liability in nuisance is strict in the sense that one has no right to carry on an activity which unreasonably interferes with a neighbour's use of land merely because one is doing it with all reasonable

⁴⁶ Article 12/1 of the Directive

⁴⁷ Article 12/5 of the Directive

care...”⁴⁸. Despite this fact, many defenses are available under each head of tort liability which by invoking it successfully, the defendant can avoid being held liable. In a private nuisance action, the defendant can avoid liability if he has a statutory authority to carry out his activity. Lord Wilberforce in *Allen v Gulf Oil Refining Ltd [1981]* ruled that: “...It is now well settled that where Parliament by express direction or by necessary implication has authorised the construction and use of an undertaking or works, that carries with it an authority to do what is authorised with immunity from any action based on nuisance... The right of action is taken away”⁴⁹. However, in *Manchester Corporation v Farnworth [1930]*, Manchester Corporation was held liable in nuisance for emitting a substance from their power station which destroyed plaintiff’s crops. It was held that although they had the statutory power to operate a power station that did not extend to the right to create a nuisance⁵⁰. Moreover, if the nuisance has been continued for 20 years without interruption, the defendant will not be liable if pleads a prescriptive right to the nuisance⁵¹. However, it is no defence to prove that the plaintiff came to the nuisance⁵².

Under the rule in *Ryland’s v Fletcher* statutory authority defense is also available; in *Geddis v Proprietors of Bann Reservoir (1878)*, Lord Blackburn summed up the law saying that: “It is now thoroughly well established that no action will lie for doing that which the legislature has authorised, if it be done without negligence, although it does occasion damage to anyone”⁵³. Furthermore, the defendant can escape liability under the rule, if he prove that the escape was due to force major or Acts of God⁵⁴. Acts of third party⁵⁵, or the plaintiff himself⁵⁶.

Under trespass, consent of the plaintiff barred a trespass action⁵⁷, as well as the defense of necessity⁵⁸. Whereas the applicable defenses under negligence are

⁴⁸ *Transco plc v Stockport Metropolitan Borough Council [2003] UKHL 61*

⁴⁹ *Allen v Gulf Oil Refining Ltd [1981] AC 1001, 1011*

⁵⁰ *Manchester Corporation v Farnworth [1930] AC 170, see also Pride of Derby and Derbyshire Angling v. British Celanese Ltd. and others (1952) CH 149*

⁵¹ *Sturges v Bridgman (1879) 11 Ch D 852, prescription is not a defense on public nuisance.*

⁵² *Bliss v Hall (1838) 4 Bing NC 183 and also Miller v Jackson [1977] 3 All ER 338*

⁵³ *Geddis v Proprietors of Bann Reservoir (1878) 3 App Cas 430, 455*

⁵⁴ *Carstairs v Taylor (1871) LR 6 Ex 217, 221 Kelly CB, and Greenock Corporation v Caledonian Railway [1917] AC 556*

⁵⁵ *Nichols v Marsland (1876) 2 Ex D 1, Rickards v Lothian [1913] AC 263 and Rox v Jobb [1879] 4 Ex.D 76*

⁵⁶ *Charing Cross Electricity Supply Co v Hydraulic Power Co [1914] 3 KB 772*

⁵⁷ *Thomas v Sorrell (1674) Vaughan 330*

⁵⁸ *Re F [1990] 2 AC 1, 74, Dewey v White (1827) M. & M. 56, and Cope v Sharpe (No 2) [1912] 1 KB 496*

Knowledge of the risk⁵⁹, Implied Agreement to Accept Risk⁶⁰. Contributory negligence can be invoked to escape liability or reduce compensation where the plaintiff contributed by his negligence to his injury⁶¹.

Notably the defense of statutory authority is not available under negligence; this can be derived from Lord Wilberforce dictum in *Allen v Gulf Oil Refining Ltd [1981]* where his Lordship made it clear that statutory authority defense is applicable only where the statutory powers are exercised without “negligence”⁶². These above mentioned defenses have their effect when these torts are to be used in environmental damage cases. However, some of these defenses are compatible with fairness especially contributory defense. But it seems that in one way or another, these defenses affect the right or the extent of compensation that should be paid to the plaintiff. Therefore, no answer is provided when the defendant’s activity resulted in ecological damage.

Under the Jordanian Civil Code many defenses are provided, Article 61 of the JCC states that: “The legitimate permission to use the right absolves liability”. It is obvious that such defense encompasses the defense of compliance with regulatory permission adopted under the EC Proposed Directive. Moreover, Article 264 provides for contributory negligence. It reads as follows: “The Court may decrease the amount of damage or may not grant any damage, if the injured person has contributed by his act to the causing of the damage or to its increase”. This same rule applies also if a third party contributed to the plaintiff damage, according to Article 261 provides that: “If a person proves that the damage resulted from an extraneous cause with which he had nothing to do with such as the act of God, sudden accident, force major, act of others, he shall not be liable”⁶³.

Additionally Article 262 provides for the defense of necessity and self-defense where it states: “Whoever causes damage while in defense of one’s person or property or of the person or property of others shall not be liable provided that he shall not exceed necessity, and otherwise he shall be liable for damages to the extent of his excess”.

These defences apply to all civil liability action, including environmental damage cases as there is no special liability regime currently in place for this kind of damage.

⁵⁹ *Woodely v Metropolitan District Railway Co (1877) 2 Ex D 384*

⁶⁰ *Morris v Murray [1991] 2 QB 6*, and *Imperial Chemical Industries Ltd v Shatwell [1965] AC 656*

⁶¹ *Jones v Livox Quarries [1952] 2 QB 608*, *Butterfield v Forrester (1809) 11 East 60, 103 ER 926* and *Froom v Butcher [1976] QB 286*. See also *1945 Contributory Negligence Act*

⁶² *Allen v Gulf Oil Refining Ltd [1981] AC 1001, 1011*

⁶³ *Jordan court of cassation 625/1997*

Regarding the EC Directive on Environmental Liability, it prepares to allow some traditional and other certain defenses. The Directive will not apply to environmental damage or imminent threats of such damage where the damage is caused by:

(a) an act of armed conflict, hostilities, civil war or insurrection; (b) a natural phenomenon of exceptional, inevitable and irresistible character⁶⁴, activities the main purpose of which is to serve national defence or international security nor to activities, the sole purpose of which, is to protect from natural disasters⁶⁵.

The Directive also provides that: "The Member States may allow the operator not to bear the cost of remedial actions taken pursuant to this Directive where he demonstrates that he was not at fault or negligent and that the environmental damage was caused by: (a) an emission or event expressly authorised by, and fully in accordance with the conditions of, an authorisation conferred by or given under applicable national laws and regulations which implement those legislative measures adopted by the Community specified in Annex III, as applied at the date of the emission or event; (b) an emission or activity or any manner of using a product in the course of an activity which the operator demonstrates was not considered likely to cause environmental damage according to the state of scientific and technical knowledge at the time when the emission was released or the activity took place.⁶⁶ Regarding the last controversial defense, it can be view as weakening the precautionary principle which represents an underpinning principle in the EC environmental policy⁶⁷, since scientific knowledge may not always provide certainty in relation with the adverse effect of a giving a activity; and therefore, polluters may make use of such defense to avoid liability on the basis that they have no scientific certainty about their activities effects.

8. Environmental damages

The expression "Environmental damage" encompasses any damage suffered by the environment and any injury suffered by individuals or their property as a result of

⁶⁴ Article 4 of the Directive

⁶⁵ Article 4/6 of the Directive

⁶⁶ Article 8/4 of the Directive,

⁶⁷ According to Article 174 of the EC Treaty "The Community policy on the environment shall be based on the precautionary principle and on the principle that preventative action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay. Environmental protection requirements must be integrated into the definition and implementation of other Community policies".

contamination⁶⁸. It is therefore divided into two categories, ecological damage and traditional damage.

8.1. Recoverability of damages under traditional liability rules:

Recoverability of damage is of significant importance where environmental damage is in question; the traditional rules of liability provide rather a limited scope of the recoverable damage.

As mentioned before, under the Jordanian Civil Code, only material damage and some limited forms of immaterial damage are compensable⁶⁹. Therefore, ecological damage as such can not be recovered unless it results in some recoverable form of traditional damage i.e. property damage or personal injury. However, the fact that ecological damage is not recoverable under the Jordanian laws is also due to the absence of a plaintiff with legitimate interest to claim compensation for that damage.

Traditional damage is recoverable under the Jordanian Civil Code; so that personal injury, medical costs, and damage to property are all compensable. Regarding the pure economic loss, it is only recoverable provided that it is a natural result of the injurious conduct⁷⁰; intangible losses such as emotional distress, pain and suffering are not recoverable⁷¹. And as seen before, the narrow approach adopted the Jordanian Court of Cassation in this regard reveals that damage to environmental amenities would not be recoverable.

Punitive damages can not be awarded under the Jordanian Civil Code; Article 266 is clear in requiring that compensation shall be estimated by the amount of the damage inflicted on the injured person and his loss of profit. Therefore, courts are not authorised to award punitive damage so as to punish the defendant, the Jordanian Court of Cassation once overturned a judgement of the District Court of First instant of Irbid because the estimation of compensation was unreasonable. The Court of Cassation ruled that: "although courts have discretion to estimate the awardable damage but this discretion shall be used within the true intention of the legislator whose intention is to compensate the victim and not to punish the reprehensible

⁶⁸ Macchiarello, G. "Environmental Regulations in Argentina", (1997), 5(3), *Journal of Environmental Liability*, p 67

⁶⁹ Article 267/1 provides that only limited forms of immaterial damage are recoverable; these forms are trespass on liberty, honour, reputation, social statue and financial standing.

⁷⁰ Article 266 of the Jordanian Civil Code

⁷¹ *The Jordanian Court of Cassation, No 481/1998, The Law Report, 1998 at p 662*

behaviour of the defendant... The District Court exceeded the reasonable estimation of damage required by the law”⁷².

In justifying such ruling, one can argue that as the Jordanian Civil Code imposes strict liability; then the Court of Cassation may noticed that the defendant may be held liable even though he was not in fault and it may considered that punishing the defendant with punitive damage assumes that the defendant acted negligently.

If this is the case, then a legitimate speculation may be raised regarding the possibility of imposing punitive damage in cases where the defendant is proved to be at fault.

Generally speaking, damage under the Jordanian Civil Code takes the form of monetary compensation. However, the law allows that the court may order restoration to the former position according to Article 269/2 which provides that: “Damage shall be estimated in money, but the court – subject to the circumstances and the application of the injured party- order restoration to the former position”. This Article is of significant importance if it is to be applied where environmental damage is in question; because restoration may be the best environmental compensation.

But it is obvious that where circumstances indicate that restoration to the former position is not possible or financially infeasible such as the case of irreversible damage, and then monetary damage remains the last resort.

Injunctives are also available under the Jordanian legislations. Obviously injunctives have their merit in environmental damage cases; because abating pollution is better than waiting until the damage occurred and then compensate the victims and it seems that injunctives are compatible with the precautionary and preventative approach that should dominated in environmental protection realm.

Article 3 of the Jordanian Act to regulate the courts of first instance 1954 allows the court to order an injunctive as a preventative measure to prevent potential damage from being inflicted. However, the courts require that injunctive shall not be granted unless the potential damage has devastating and irreversible nature⁷³.

In the UK the situation is different; because tort liability can be imposed under different doctrines i.e. nuisance, negligence etc. Therefore, recoverability of the damage differs according to which head of liability is in question.

Under nuisance and the rule in *Ryland's v Fletcher*, it has been confirmed that these torts are torts against land; therefore, the plaintiff can not recover damage for personal

⁷² *The Jordanian Court of Cassation, No 233/1995, The Law Report, 1995, p 1034*

⁷³ *District Court of First Instance- West Amman 165/1978, Not Reported*

injury. In *Read v J Lyons & Co Ltd* [1947], Lord Macmillan made it clear that liability under the rule in *Ryland's v Fletcher* is not concerned with liability for personal injuries which is covered by other parts of the law of torts⁷⁴. Moreover, in *Transco plc v Stockport Metropolitan Borough Council* [2003], Lord Hoffman referred to two recent decisions of the House of Lords: *Cambridge Water Co v Eastern Counties Leather plc* [1994], -which decided that *Ryland's v Fletcher* is a special form of nuisance- and *Hunter v Canary Wharf Ltd* [1997], -which decided that nuisance is a tort against land-, and concluded that damages for personal injuries are not recoverable under the rule in *Ryland's v Fletcher*⁷⁵.

Therefore, only damage to property or land could be recovered in the case of nuisance and the rule in *Ryland's v Fletcher*. The damage may be estimated by reference to the market value of the property⁷⁶, or the diminution of property value according to the facts⁷⁷.

Loss of amenities is not recoverable under nuisance as indicated in *Bridlington Relay Ltd. v. Yorkshire Electricity Board* [1965] in which Lord Buckley J. said: " I do not think that it can at present be said that the ability to receive television signals free from occasional, even if recurrent and severe, electrical interference is so important a part of an ordinary house holder's enjoyment of his property that such interference should be regarded as a legal nuisance, particularly, perhaps, if such interference affects only one of the available alternative programmes"⁷⁸. This ruling was affirmed in *Hunter v Canary Wharf Ltd* [1997] where the House of Lords denied the recoverability of the loss of amenities under nuisance.

However, the fact that damage to amenities is unquantifiable for technical or financial reasons should not be a justification for a polluter not to pay compensation for such loss. Therefore Lord Lloyd of Berwick stated that: "...damages for loss of amenity value cannot be assessed mathematically. But this does not mean that such damages cannot be awarded"⁷⁹. If this last view is to be followed and expanded, then it may be a starting point to think about imposing liability on polluters whose activities damage

⁷⁴ *Read v J Lyons & Co Ltd* [1947] AC 156. However, in some cases in the first half of the 20th century plaintiffs' recovered damages under the rule for personal injury. See for example *Hale v Jennings Bros* [1938] 1 All ER 579 and *Shiffman v Order St John* [1936] 1 All ER 557.

⁷⁵ *Transco plc v Stockport Metropolitan Borough Council* [2003] UKHL 61

⁷⁶ *Liesbosch Dredger v SS Edition* [1933] AC 449

⁷⁷ *Dodd Properties v Canterbury City Council* [1980] 1 All ER 928

⁷⁸ *Bridlington Relay Ltd. v. Yorkshire Electricity Board* [1965] Ch. 436

⁷⁹ *Hunter v Canary Wharf Ltd* [1997] 2 All ER 426

the amenities of the environment, especially where pollution results in harms to flora and fauna or to the mere surroundings. But unfortunately, the right to claim such damage will be restricted to cases where such amenities are considered to be part of plaintiff's property; because the rules governing standing under nuisance deny any claim if the plaintiff has no property right or interest in land.

Injunctions which are the most effective remedies are also available under nuisance; since it can put an end to the pollution⁸⁰, or even to prevent pollution from occurring. Therefore, injunctions especially which have an anticipatory nature can be seen as a judicial tool by which the precautionary approach can be implemented. The courts enjoy a wide discretion to grant injunction⁸¹. And it may grant injunction regardless of the public benefits attached with the defendant's conduct⁸².

Negligence as oppose to other norms of liability mentioned above protects individuals against personal injury, property damage, and to a certain extent pure economic loss, while other common law doctrines are particularly concerned with the protection of interests in land⁸³. Moreover, there is no rule prohibit awarding compensation to plaintiff who suffered damage to his property as a result of the defendant's negligence.

As to the recoverability of pure economic loss, in *Merlin v British Nuclear Fuels plc* [1990], the court rejected to award compensation for pure economic loss (diminution in value of a house) because it was not combined with actual physical harm caused by the radioactive contamination⁸⁴, whereas pure economic loss was recovered in *Blue Circle Industries plc v Ministry of Defence* [1997], the court found that although the loss in value is purely economic damage, but it arose as a result of the physical damage suffered by the plaintiff⁸⁵.

These two cases were concerned with radioactive contamination dealt with under the Nuclear Installations Act 1965 which imposed strict statutory liability where the duties of a licensee were breached⁸⁶. It is worth mentioning in this regard that the EC

⁸⁰ *Pride of Derby and Derbyshire Angling v. British Celanese Ltd. and others* (1952) CH 149

⁸¹ *Kennaway v Thompson* [1981] QB 88

⁸² *Shelfer v City of London Electric Lighting Co* [1895] 1 Ch 287, *Cowper v Laidler* [1903] 2 Ch 337, and *Marriott v East Grinstead Gas and Water Co* [1905] 2 Ch 614

⁸³ D. Howarth "Muddying the Waters: Tort Law and the Environment from an English Perspective", (2002), 41, *Washburn Law Journal*, pp 469-513

⁸⁴ *Merlin v British Nuclear Fuels plc* [1990] 2 QB 557,

⁸⁵ *Blue Circle Industries plc v Ministry of Defence* 1997 Env LR 347

⁸⁶ Section 7 of that Act imposes a duty to prevent damage or injury arising out of the radioactive properties of nuclear material to persons other than the site licensee.

Proposed Directive on Environmental Liability provides that: the Directive shall not give private parties a right of compensation for any economic loss sustained in consequence of environmental damage or of an imminent threat of such damage⁸⁷.

Punitive damage can also be granted at the courts discretion. However, the House of Lords in *Rookes v Barnard* [1964] expressed its disapproval of awarding such kind of compensation. Lord Devlin described such compensation in civil action as anomalous; since it belongs to criminal law⁸⁸. Since then awarding punitive damage in civil litigations was restricted to certain categories which do not include environmental liability; these categories are: (i) where there has been oppressive, arbitrary or unconstitutional action by servants of the government;

(ii) where the defendant's conduct has been calculated by him to make a profit for himself which may well exceed the compensation payable to plaintiff;

(iii) Where exemplary damages are expressly authorised by statute⁸⁹. But later in *Cassell & Co Ltd v Broome* [1972], their Lordships affirmed the view that exemplary or punitive damages are not limited to particular cases and that such damages are discretionary, not mandatory⁹⁰. The virtue of punitive damage in general and in environmental damage cases in particular is that, it may provide a legal albeit economic incentive to the defendant to be aware of the burden of liability that he may face if his conduct resulted in a damage; this legal incentive has a deterrent effect that encourage polluter to adopt a precautionary approach to prevent pollution in advance to avoid liability.

Under the EC Directive on Environmental Liability 2004, traditional damage is excluded from the scope of the Directive; because the European Commission took the view that such damage is covered under the national laws of the Member States. Therefore, only biodiversity damage is covered. It denied private parties a right of compensation as a consequence of environmental damage or of an imminent threat of

⁸⁷ Article 3/3 of the EC Directive, 2004/35/CE

⁸⁸ *Rookes v Barnard* [1964] AC 1129, See also *A B v South West Water Services Ltd* [1993] QB 507

⁸⁹ For further see Mullis, A and Oliphant, K, "Torts", Third edition 2003, Palgrave Macmillan publishing, at 360-365

⁹⁰ *Cassell & Co Ltd v Broome* [1972] AC 1027, See also *Kuddus v Chief Constable of Leicestershire Constabulary* [2002] 2 AC 122

such damage⁹¹. The Directive did not cover damage to environmental amenities as it only covers significant biodiversity damage⁹².

9. Judicial reluctance towards developing traditional rules in environmental context:

The English courts express its reluctance to develop further the Common Law principle so as to achieve environmental purposes, this approach has been shown in many cases involving environmental element.

As for the basis of liability under the rule in *Ryland's v Fletcher*, Lord Goff in *Cambridge Water Company Ltd v Eastern Counties Leather plc [1994]*, admitted that the protection and preservation of the environment is now perceived as being of crucial importance to the future of mankind. However, he did not agree that a common law principle, such as the rule in *Ryland's v. Fletcher*, should be developed or rendered stricter to provide for liability in respect of such pollution and made it clear that the Parliament and not courts who is in appropriate position to impose strict liability, and that it is not desirable that the courts provide for strict liability in cases where pollution is in question.

His Lordship justified his point by saying that public bodies, both national and international, are taking significant steps towards the establishment of legislation which will promote the protection of the environment, and make the polluter pay for damage to the environment for which he is responsible, his Lordship went on to say "...So much well-informed and carefully structured legislation is now being put in place to effect environmental protection" and upon this justification he concluded that "...there is less need for the courts to develop common law principles to achieve the same end, and indeed it may be undesirable that they should do so"⁹³.

Lord Goff particularly referred to the Report of the Law Commission on Civil Liability for Dangerous Things and Activities (1970) (Law Com. No. 32). In paragraphs 14-16 of the Report, the Law Commission expressed serious misgivings about the adoption of any test for the application of strict liability involving a general concept of "especially dangerous" or "ultra-hazardous" activity, having regard to the

⁹¹ Article 3/3 of the Directive

⁹² Article 1 always attaches the term 'significant' to describe any kind of biodiversity damage covered under the Directive.

⁹³ *Cambridge Water Company Ltd v Eastern Counties Leather plc [1994] 2 AC 264*

uncertainties and practical difficulties of its application. His Lordship concluded that if the Law Commission is unwilling to consider statutory reform on this basis, it must follow that judges should if anything be even more reluctant to proceed down that path. Moreover, He expressed the view that it is not envisaged that statutory liability should be imposed for historic pollution, referring in particular to the Council of Europe's Draft Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment⁹⁴, article 5.1 and paragraph 48 of its Explanatory Report, and noted that it would be strange if liability for such pollution were to arise under a principle of common law.

A deep interpretation for Lord Goff dictum implied that strict liability has no place under common law doctrines and that the courts are not willing to impose strict liability for damage caused as a result of environmental pollution. This reluctant approach towards developing the common law principle was expressed in *Wilsher v Essex Area Health Authority* [1988], where Lord Bridge pointed out that: "... whether we like it or not, the law, which only Parliament can change, requires proof of fault causing damage as the basis of liability in tort. We should do society nothing but disservice if we made the forensic process still more unpredictable and hazardous by distorting the law to accommodate the exigencies of what may seem hard cases"⁹⁵.

More recently in *Hunter v Canary Wharf Ltd* [1997], the House of Lords considered the issue of standing under the tort of nuisance and the recoverability of damage caused to the home amenities; the case was concerned with interference with TV signals and the plaintiff had not proprietary right or exclusive possession. Their Lordships took a restrictive interpretation to persons who have the right to sue in nuisance; those people are only who must at least be able to assert exclusive possession of land to be able to bring an action in private nuisance", and more importantly, Lord Hoffman added that: "There is a good deal in this case and other writings about the need for the law to adapt to modern social conditions. But the development of the common law should be rational and coherent. It should not distort its principles and create anomalies merely as an expedient to fill a gap"⁹⁶.

In his dissenting judgment Lord Cooke noted that international standards such as -he referred to- the United Nations Convention on the Rights of Child- may be taken into

⁹⁴ Lugano Convention (Strasbourg 26 January 1993)

⁹⁵ *Wilsher v Essex Area Health Authority* [1988] AC 1074

⁹⁶ *Hunter and others v Canary Wharf Ltd* [1997] 2 All ER 426

account in shaping the Common Law⁹⁷. This luminous view -contrary to the view expressed in Cambridge case and the majority in Hunter case- reveals the need to adapt some common law principles to achieve certain objectives which may include environmental protection.

This restrictive interpretation has been challenged later in *McKenna v British Aluminium Ltd* [2002], where the High Court extended the protection under nuisance to people who has lived in the home for some time and has had his enjoyment of the home interfered with, justifying its ruling on the ground that ruling otherwise would put those people at the mercy of the person who owns the home, as the only person who can bring proceedings”⁹⁸.

However, the House of Lords remain loyal to its previous approach when their Lordships overruled the Court of Appeal judgement in *Marcic v. Thames Water Utilities Limited* [2003], which found in favour of Mr Marcic ruling that the defendant ‘Thames Water Utilities Limited’ was under a duty to Mr Marcic to take positive steps as, in all the circumstances, were reasonable to prevent the discharge of surface and foul water onto Mr Marcic’s property and also that Mr Marcic Convention Right has been infringed by the failure of the defendant to take such steps⁹⁹.

The House of Lords rejected both views, and concluded that “the failure of a sewage authority to construct new sewers did not constitute an actionable nuisance and they noted that the rule that the defendant is under obligation to take positive steps as reasonable to prevent nuisance is only applicable between individuals but their Lordships doubted its existence when one is dealing with a capital expenditure of a statutory undertaking providing public utilities on a large scale”¹⁰⁰. And regarding the assertion that Mr Marcic Convention right has been infringed, their Lordships took the view that the claim under the Human Rights Act 1998 is ill-founded, citing the decision of the Grand Chamber of the European Court of Human Rights in *Hatton v United Kingdom* 2003, which made it clear that the Convention does not accord absolute protection to property or even to residential premises. It requires a fair

⁹⁷ *Hunter and Others v Canary Wharf Ltd.* (1997) 2 All ER 426

⁹⁸ *McKenna v British Aluminium Ltd* [2002] Env LR 30, See also *Khorasadjian v Bush* (1993) 3 WLR 476; (1993) 3 All ER 669

⁹⁹ *Marcic v Thames Water Utilities Ltd* [2001] 3 All ER 698

¹⁰⁰ *Marcic v. Thames Water Utilities Limited* [2003] UKHL 66

balance to be struck between the interests of persons whose homes and property are affected and the interests of other people.

Regarding the requirement of causation, the House of Lords as noticed in chapter four tried to alleviate the standard of causation required in cases concerning mesothelioma resulted from asbestos dust to the plaintiff during two periods of work with two defendants both are in breach of their duty to provide safety equipments. Their Lordships ruled that “it is sufficient both in principle and authority that the breach of duty contributed substantially to the risk that the claimant would contract the disease”¹⁰¹. However, this ruling was very restricted in its scope and it requires many conditions to be applied.

Notably, the reluctant judicial approach shown later in environmental damage case has been indirectly criticised by Lord Woolf when he suggested that a special environmental court or tribunal is needed to examine environmental problems with unlimited vision. His Lordship believe that such a special environmental court would be a one stop shop, which should lead to faster, cheaper and the more effective resolution of disputes in the environmental area, and avoid increasing the load on already over burdened lay institutions by trying to compel them to resolve issues with which they are not designed to deal¹⁰².

As for the Jordanian courts’ approach towards cases with environmental implications, although, it can not be said that it is a reluctant approach, but the fact is that, few cases -with environmental implications- have been ruled by Jordanian courts, and even though, Jordanian courts did not pay any attention for these environmental implications. Therefore, it ruled these cases according to the general rules in the Jordanian Civil Code or other applicable Acts and made no reference to the need to adapt traditional rules so as to cope with the difficulties involved.

At the European level, there was a promising and creative approach shown by the European Court of Human Rights during the last nineties of the last century towards deriving a human environmental right by means of extending the interpretation of certain protected human rights. However, this approach has to be questioned after the recent judgment of *Hatton and Others v. the United Kingdom* 2003 where the Court ruled: “Environmental protection had to be taken into account by Governments in

¹⁰¹ *Fairchild v Glenhaven Funeral Services Ltd and others* [2002] 3 All ER 305

¹⁰² Lord Woolf, “Are the Judiciary Environmentally Myopic?”, (1992), 4(1), *Journal of Environmental Law*, p1

acting within their margin of appreciation and by the Court in its review of that margin, but it would be inappropriate for the Court to adopt a special approach to environmental protection by referring to a special status of environmental human rights”¹⁰³. This judgment indicates that the argument over the existence of environmental human right in Europe is by no means over¹⁰⁴ or as one commentator rightly pointed out that “...The environment is not the home of any new species of right; it is simply the stage on which the interaction between law, politics and the economy are acted out”¹⁰⁵.

¹⁰³ *Hatton and Others v. the United Kingdom* [2004] 1 All ER 135, for more in this regard see Chapter two of the thesis.

¹⁰⁴ A. Layard, “Human Right in the Balance- Hatton and Marcic”, (2004), 6(3), Env. L. Rev, p196

¹⁰⁵ C. Miller, “Environmental Rights in a Welfare State? A comment on DeMerieux”, (2003), 23 (3) O. J. L. S. pp 111-125. See also M. DeMerieux, “Deriving Environmental Rights from the European Convention for the Protection of Human Rights and Fundamental Freedoms”, (2001), 21(3) O. J. L. S, pp521-538

Conclusion:

While the UK is a developed country and its environmental law seems to be fairly developed, environmental law in Jordan is heavily characterised by the fact that Jordan is a developing country. And the way Jordan handle its environmental problems is highly influenced by the nature of environmental problems and its origins. Most of environmental problems facing Jordan are the result of political instability or the hard natural and climatic conditions. Therefore, the role of environmental law – and civil liability in particular- in solving these problems remains marginal, environmental law provide a framework by which the effects of these environmental problems may be alleviated. In light of this situation, Jordan needs to invest heavily on its infrastructure and strategic Socio-Economic planning as well as control the utilisation of its limited water and other natural recourses.

This study concluded that Jordanian legal system as it stands now tends to deal with environmental protection –including civil liability for environmental damage- by means of public law rather than by private law mechanisms. Therefore, it seems unreasonable to say that Jordan has an environmental liability regime in the strict sense. However, Jordanian courts apply the general rules of civil liability whenever it decide a case concerning compensation for damage regardless the nature of this damage being it caused by pollution or other sources. Furthermore, the traditional rules on liability contained in the Jordanian Civil Code provide no answer as regards liability for ecological damage as no party has been conferred standing to sue polluters who cause harm to the unowned environment.

It fairly can be concluded that, Jordan recognises the main environmental law principles such as the sustainable development; polluter pays principle, and precautionary principle besides applying the environmental impact assessment. However, the implementation of the ‘polluter pays principle’ is achieved via criminal law instruments. The practice in Jordan indicates that, civil liability for environmental damage is still unsurprisingly unknown or –at best- in its infancy stage; the victims of environmental damage are either unaware of their right to sue polluters who are responsible for their injuries or unwilling to bring a relatively expensive and complex actions against them.

As the Jordanian mining and industrial sector is getting larger; potential environmental damage cases may be brought by victims of environmental damage or

by environmental interest groups to make the polluter pay for the damage he caused to the environment and therefore, it is to be hoped that these cases will be ruled in favor of the environment. However, many environmental problems facing Jordan are the result of political instability or the hard natural conditions. Therefore, the role of environmental law –and civil liability in particular- in solving these problems remains marginal, environmental law provide a framework by which the effects of these environmental problems can be alleviated. Jordan needs to invest heavily on its infrastructure and strategic planning, careful and sustainable utilisation and management for its limited and un-renewable recourses, and also promote environmental education among its citizens.

As for the Jordanian courts, although there is nothing in the law that prohibits them from dealing with cases involved environmental damage, the traditional rules laid down in the Jordanian Civil Code or even in the Jordanian Environmental Protection Act do not seem capable of handling the legal issues raised by environmental damage. Therefore, a need to amend and/or enact new rules to deal with these issues is beyond doubt.

The fact that Jordan has a relatively sufficient civil liability rules capable of dealing with civil liability regardless the source of damage, does not mean that these rules are best designed to tackle liability where environmental damage is in question.

A positive start may be taken by adding a new explicit article to the Jordanian Constitution to confer individuals an actionable right to healthy and clean environment besides the government duty to promote the protection of the environment and ensure that those who cause harm to the environment or human health be held liable for their wrongdoings.

Environmental education may be of useful role to play in increasing environmental awareness; this awareness will help reducing pollution, and in the case of pollution occurred will enlighten the way of victims as well as courts.

Disappointingly, environmental damage cases under the Jordanian jurisdiction have not been dealt with in a proper way¹; the case against the Jordanian Cement Factories indicates that environmental protection does not form an urgent priority for the government of Jordan and that the bargaining power of the polluter- the government in

¹ *The District Court of First Instant- Fuheis and Mahes, 12/2002, not reported*

that case- plays a central role in forming the governmental policies regarding environmental protection. However, the national economic considerations associated with that case may alleviate this disappointing outcome. Therefore, it is still fair to believe that the potential emergence of environmental damage cases is highly expected with the introduction of environmental legislations such as the Environmental Protection Act 1992.

The public law approach to deal with environmental protection adopted by Jordan has some advantages over the use of private law rules provided that such approach be sufficient, coherent and comprehensive. In practice, the Jordanian environmental laws are neither sufficient, nor coherent or comprehensive; many of them are out-of date; some are overlapping with each other². Therefore, a need to review all Jordanian legislations which deal with environmental issues is clear and this revision shall be conducted by specialists from all concerned parties; legal professionals, environmentalists, NGOs' representatives, economic and governmental sectors.

As Jordan follows the Civil law-system where the role of judiciary in developing the law is less obvious than in Common law-system countries; legislative interference seems inevitable and urgently needed to handle the legal issues raised by environmental damage cases. Whereas as in the UK, a more liberal judicial perspective adopted in environmental damage cases may fulfil this need.

The study also revealed the major difficulties associated with establishing liability for environmental damage, be it the requirement of fault in negligence, and foreseeability of the damage caused to the plaintiff in negligence, nuisance, and the rule in *Ryland's v. Fletcher* as well as the burden of proof, which weakened the role of traditional rules of liability in environmental damage cases. Moreover, the fact that bringing an action in common law requires the plaintiff to show some property right or interest in land introduces a major draw-back to the law of tort, that is to say tort law as it stands, can not be useful as a means to claim compensation where the environment in its own right suffered deterioration. However, some writers concluded that the traditional approach in tort law regarding the requirement of proprietary, possessory right to have

² See Chapter 3, Problems with the Jordanian environmental protection approach.

locus standi is changing, arguing that this approach will pave the way toward remedying pure environmental damage as such³.

Negligence is the only action that this requirement is not needed in order to the plaintiff to have standing. However the principle of proximity 'neighbourhood' which is a crucial issue in determining the existence of the duty of care will apply in negligence to limit its scope to those who are likely to be injured as a result of defendant's activity which may affect the usefulness of negligence where damage is widespread or in the case of ecological damage.

One may argue that as traditional rules of liability under common law or civil law systems have a reactive nature, therefore, these rules are not fully compatible with the precautionary principle which should be a cornerstone in any wider environmental protection regime. All these difficulties indicate that the common law suffers from significant limitations rendering it far from being the ideal legal response to the urgent need to secure environmental protection and compensate victims of environmental damage⁴.

Notwithstanding a huge magnitude of statutory regimes are now put in place to deal with environmental damage, some writer believe that tort will continue to provide the first and the last resort to individuals whenever, their properties have been adversely affected by environmental damage⁵.

Although it can be described as a pragmatic legal system, common law developments which have environmental ramifications tend to be a step backward and a step forward; Some cases were decided in such a way that reveals that the court are aware of tort law deficiencies and are prepared to develop its principles. This trend was shown in cases such as *Fairchild*, *McKenna*. However, other cases were decided conservatively so as to keep common law away from the new challenges presented

³ See Wetterstein. P "A Proprietary or Possessory Interest: A *Conditio Sine Qua Non* for Claiming Damages for Environmental Impairment?" In "Harm to the Environment: The Right to Compensation and the Assessment of Damage". Edited by Wetterstein. P. Clarendon Press. Oxford. 1997. P 32-54. In fact, the ruling in *McKenna v British Aluminium Ltd [2002]* can be cited to illustrate this change.

⁴ There is an argument still believes that, these difficulties, in common law, are general and not peculiar or unique to environmental damage suggesting that, it is better to deal with the issue of compensation for environmental damage especially pure environmental harm via tax and criminal law rather than tort law. See P. Cane "Are environmental harms special?", (2001), 13(1) *Journal of Environmental Law*, p 17

⁵ R. Jeremy. & M. Donna, "Environmental protection and the Role of Common Law: A Scottish Perspective", In "Environmental protection and the common law" Edited by John Lowry & Rod Edmunds. Oxford -Portland Oregon 2000, pp239-265

by environmental damage. This was the case in *Cambridge Water Company, Hunter, Marcic and Transco*.

Notably, the decision in *Cambridge Water Company- v- Eastern Counties Leather plc* (1994), in which the House of Lords required the plaintiff to show that, harm suffered from property encroachments should be reasonably foreseeable has significantly weakened the strength of English nuisance law as well as the rule in *Ryland's v Fletcher* in environmental damage cases and also raised doubt about the nature of strict liability under the common law.

But as UK is a member state of the European Union and there is a highly potential that it's approach toward civil liability for environmental damage will be affected by the EU initiatives in this regard. It remains to be seen how the UK will response to the EU environmental liability approach included in the Directive on Environmental Liability 2004⁶.

For the time being, and in light of the recent cases ruled by English courts (*Cambridge, Hunter, Graham*), it is unlikely that the common law will witness a significant development so as to increase its capability of handling legal issues raised by environmental damage. However, an interesting point was made by the court of appeal in the case of *Marcic v Thames Water Utilities Ltd [2001]* when it was rightly said that "the modification of common law may be necessary if common law is to march in step with the requirements of the European Human Rights Convention"⁷.

Lord Bingham of Cornhill said in an interesting passage while ruling in *Fairchild* "Development of the law in this country cannot of course depend on a head-count of decisions and codes adopted in other countries around the world, often against a background of different rules and traditions. The law must be developed coherently, in accordance with principle, so as to serve, even-handedly, the ends of justice. If, however, a decision is given in this country which offends one's basic sense of justice, and if consideration of international sources suggests that a different and more

⁶ For a full discussion see chapter 5. Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage

⁷ *Marcic v Thames Water Utilities Ltd [2001]* 3 All ER 698

acceptable decision would be given in most other jurisdictions, whatever their legal tradition, this must prompt anxious review of the decision in question”⁸.

Some writers believe that, as a result of the difficulties attached with common law doctrines when they are to be applied in environmental case; the role of common law as a means of environmental protection will remain marginal or subsidiary one. Therefore, they believe that public regulations now and in the foreseeable future will play a central role in environmental protection including liability for environmental damage⁹. This point has been supported by the House of Lords in *Cambridge Water Company* case where Lord Goff where he stressed that in the time where there are many well-structured statutes put in place; it would be strange and inappropriate that the courts develop the common law principles so as to achieve environmental goals¹⁰.

It is to be hoped that a statutory regime on civil liability for environmental damage will cover all legal and technical difficulties attached with environmental damage cases. The desired both in Jordan or the UK regime should in the first place deal with the base of liability, in this context, a strict liability approach might be more effective to deter polluters and create incentives to adopt a more environmentally sound conduct.

Moreover, it should address the issue of standing allowing individuals and environmental interest groups to sue on behalf of the environment where the environment as such suffers damage as a result of polluters’ activities. A good start may be the adoption of the approach included in the European Directive 2004 in order to increase the role of environmental interest groups and individuals in environmental protection. The courts in such cases may issue a restoration order, or award compensation that should be used in cleaning up and restoring the damaged environment.

More importantly, the traditional burden of proof should be alleviated by requiring the plaintiff to show only that the defendant’s activity is capable of causing his injury (plausible causation) or creating a statutory presumption to reverse the burden of

⁸ *Fairchild v Glenhaven Funeral Services Ltd and others* [2002] 3 All ER 305 WLR 89

⁹ R. Jeremy. & M. Donna, “Environmental Protection and the Role of Common Law: A Scottish Perspective”, In “Environmental Protection and the Common Law” Edited by John Lowry & Rod Edmunds. Oxford –Portland Oregon 2000, pp239-265

¹⁰ *Cambridge Water Company Ltd v Eastern Counties Leather plc* [1994] 2 AC 264

proof to the defendant. In this regard the German Environmental Act 1990 might be a good example on how to alleviate the traditional burden of proof by creating a statutory presumption of causation. It is worth mentioning that the House of Lords decision in *Fairchild v Glenhaven* case which alleviated the traditional burden of proof is promising and should be encouraged to be applied in environmental damage cases where multiple polluters contribute to damage sustained.

Bibliography

- Alder, J. Wilkinson. D. (1999). "Environmental Law and Ethics". London, Macmillan Press Ltd.
- Alexandre, K. (1989). "The Future of Environmental Law in Europe". "Understanding US and European Environmental Law: A practitioner's Guide". T. T. P. K, Graham and Tortman: 147-154.
- Ameen, M. (2001). "The Procedural Protection to the Environment". Aleskandaria, Aleskandaria University Publishing.
- Andreas, R. Martin. N. (2001). "The Design of Liability Rules for Highly Risky Activities: Is Strict Liability the better Solution?" Hamburg, Hamburg University. available online at: http://www.rrz.uni-hamburg.de/IfVBL/WP_R&I_1.pdf
- Attfield, R. (1999). "The Ethics of the Global Environment". Edinburgh, Edinburgh University Press.
- Baker, C. (1996). "Concise Course Texts Tort". London, Sweet & Maxwell.
- Barboza, J. (1997). "The International Law Commissions and Environmental Damage". "Harm to the Environment: the Right to Compensation and the Assessment of Damage". P. Wetterstein, Claredon Publishing.
- Barrenetxea, G. Martin. J. (1997). "The Spanish Act on Liability for Environmental Damage." Environmental Liability 5(6): 115-125.
- Beckwith, S. Thornton. J. (1997). "Environmental Law", Sweet & Maxwell.
- Bell, S. (1997). "Environmental Law: The Law and Policy relating to the Protection of the Environment", BlackStone Press Book Ltd.
- Bergkamp, L. (2000). ""The Commission's White Paper on Environmental Liability: A Weak Case for an EC Strict Liability Regime. Part 1"." European Environmental Law Review 4: 105-114.

- Bergkamp, L. (2001). ""The Commission's July 2001 Working Paper on Environmental Liability: Civil or Administrative Law to Prevent and Restore Environmental Damage"." Environmental Liability 9(5): 207-216.
- Bergkamp, L. (2002). "Understanding the Precautionary Principle: Part1". Environmental Liability 10(1), 18-30.
- Bergkamp, L. (2002). "The Proposed Environmental Liability Directive." European Environmental Law Review 11(12): 327-341.
- Berry, R. (1993). "Environmental Dilemmas: Ethics and Decisions", Chapman & Hall.
- Betlem, G. (1995). ""Standing for Ecosystems- Going Dutch"." Cambridge Law Journal 54(1): 153-170.
- Betlem, G. (1998). "Liability for Damage to the Environment". "Towards a European Civil Code". H. others, Kluwer Law international: 473-491.
- Betlem, G. (2001). ""Strict Environmental Liability and NGO Damage and Enforcement Claims: Dutch and International Law Perspective." European Environmental Law Review: 10(11): 314-221.
- Bianchi, A. (1994). ""The Harmonisation of Laws on Liability for Environmental Damage in Europe: An Italian Perspective"." Journal of Environmental Law 6(1). 21-42
- Bienemann, C. (1996). "Civil Liability for Environmental Pollution: Different regimes and Different Perspectives". Aberdeen Law School. Aberdeen, University of Aberdeen:
- Bocken, H. (1997). "The Compensation of Ecological Damage in Belgium". "Harm to the Environment: The Right to Compensation and the Assessment of Damage". P. Wetterstein. Oxford, Clarendon Press: 143-158.
- Bothe, M. (1998). "The Right to a healthy Environment in the European Union", Kluwer Law International.
- Bowman, M. (1997). ""Towers. Televisions and Troubles in the Isle of Dogs- The Law of Nuisance Revisited"." Environmental Liability 5(6): 130-135.

- Brain, J. (2002). "European Commission: Proposal for a Framework Directive on Environmental Liability." Journal of Environmental Law and Management 14(1): 5-10.
- Brans, E. (2002). "'EC Proposal for Environmental Liability Directive: Standing and Assessment of Damages'." Environmental Liability 10(4): 135-146.
- Bryce, A. (2002). "Pollution and Unforeseen Exposures". 2003. available online at www.risksociety.com/uploads/papers/Bryce.doc
- Buckley, R. Heutson. R. (1996). "Salmond and Heuston on the Law of Torts", Sweet & Maxwell Ltd.
- Burnett-Hall, R. (1990). "Emerging Trends in Environmental Law: Non-Fault Liability in the United Kingdom. P. Thomas, Graham & Tortman Ltd.
- Burrell, R. Lee. M. (2002). "Liability for the Escape of GM Seeds: Pursuing the Victim?" The Modern Law Review 65: 517-537.
- Cane, P. (1997). "The Anatomy of Tort Law", Hart Publishing.
- Cane, P. (2001). "Are Environmental Harms special?" Journal of Environmental Law 13(1): 1-20.
- Cane, P. (2002). "'Using Tort Law to Enforce Environmental regulations'." Washburn Law Journal 41(3): 427-267.
- Cane, P. (2002). "Theories of Tort Law". 2003. Available online at <http://www.setis.library.usyd.edu.au/stanford/entries/tort-theories/#1#1>
- Christopher, S. (1972). "Should Trees Have Standing?: Toward Legal Rights For Natural Objects." Southern California Law Review 45. 450
- Christopher, S. (2001). "Is There a Precautionary Principle?" Environmental Law Report 31: 10789-10799.
- ECE, (2004), "Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage", *Official Journal L* 143 , 30/04/2004 P. 0056 - 0075
- ECE, (1989), "Commission Proposal for a Council Directive on Civil Liability for Damage Caused by Waste". OJ (C 251) 3.

- ECE, (1993). "The European Community Programme of Policy and Action in Relation to the Environment and sustainable Development".
- ECE, (1995), "Study of Civil Liability Systems for Remedying Environmental Damage: Final Report, EC. available on line at http://europa.eu.int/comm/environment/liability/civiliability_finalreport.pdf
- ECE, (2000), "The EC White Paper on Environmental Liability". Brussels, EC. COM 2000. 66 Final, 9 February 2000
- Cranworth, R. (1992). "Environment Enforcement: The Need for a Specialised Court." Journal of Planning and Environment 7: 798-806.
- David, F. (1991). "European Community Environmental Policy and Law". "Law, Policy and the Environment". R. C. L. Warren, Basil Blackwell: 135-155.
- David, F. (1994). "'The Road for Rio: International Environmental Law after the Earth Summit'." Journal of Environmental Law 6(2): 193-218.
- Day, M. Pugh. C. (1992). "Toxic Torts", Cameron May Ltd.
- Deakin, S. Markesinis. B. (1998). "Tort Law". Oxford, Clarendon Press.
- Deakin, S. (1999). "'The Evolution of Tort'." Oxford Journal of Legal Studies 19: 537-546.
- Freshfields Bruchaus Deringer (2002). "Environmental Liability in the UK". Available at: <http://www.freshfields.com/practice/environment/publications>
- Desgagne, R. (1995). "'Integrating Environmental Values into the European Convention on Human rights'." The American Journal of International Law 89 (2): 263-294.
- UN Commission on Sustainable Development. (1997). "Rio Declaration on Environment and Development: Application and Implementation". NewYork, Report to the Secretary General of the United Nations on the Work of the Commission on Sustainable Development. Available online at: <http://www.un.org/esa/sustdev/sdissues/consumption/cpp141.htm>
- Hammond Suddards Edge-UK "The latest moves towards an EU Environmental Liability Regime- a White Paper or a White Flag?" 2002. The National Law Firm. available online at www.hammondsuddardsedge.co.uk

- Editor, T. (1997). "Environmental Protection in Jordan". Alrai. Amman: Issue 7814.
- Elizabeth, H. (2002). ""The Environmental Liability Directive"." Environmental Liability 10(1): 3-10.
- Emily, R. (2000). "Judicial Review and the Protection of non-Commercial Interest in the European Community". Web Journal of Current Legal Issues 1. available at: <http://www.webjcli.ncl.ac.uk/2000/issue1/reid1.html>
- Eremich, A. Jacoby. D. (1990). "Environmental Liability in the United States of America". "Environmental Liability". P. Thomas, Graham & Tortman Publication: 63-93.
- Faure, M. Betlem. G. (1998). ""Environmental Toxic Torts in Europe: Some Trends in Recovery of Soil Clean-up Costs and Damage for Personal Injury in the Netherlands, Belgium, England and Germany"." Georgetown International Environmental Law Review 10: 855-890.
- Faure, M. (2001). "Environmental Damage Insurance in Theory and Practice". The Law and Economics of Environmental Policy: UCL Centre for Law and the Environment. Available online at: <http://www.cserge.ucl.ac.uk/Faure.pdf>
- Fisher, E. (2001). "Is Precautionary Principle Justiciable?" Journal of Environmental Law 13(3): 315-334.
- Forster, M. (1994). "Paying for our Past". Journal of Environmental Law and Management 6: 38-39.
- Freeman, P. Kuneduter. H. (2001). "Insurability, Environmental Risks and the Law". "The Law and Economics of the Environment". H. Anthony, Edward Elgar Publishing Ltd.
- Galizzi, P. (2000). ""Globalisation, Trade and the Environment: Broadening the Agenda after Seattle"." Environmental Liability 8(4). 106-119.
- Gearty, C. (1989). ""The Place of Private Nuisance in a Modern Law of Torts"." Cambridge Law Journal 48: 214-242.
- Glanville, W. (1951). "The Aims of the Law of Tort." Current Legal Problems 4: 137-176.

- Governemnt, J. (2000). "The Jordanian National Agenda 21, Towards Sustainable Development". Amman.
- Grant, M. (1996). "European Environmental Law". Kluwer Law International.
- Grant, M. (2000). "Environmental Court Project: final report". Available online at:
http://www.odpm.gov.uk/stellent/groups/odpm_planning/documents.
- Haneef, S. (2002). "Principles of Environmental Law in Islam". Arab Law Quarterly: 241-254.
- Hanqin, X. (2003). "Transboundary Damage in International Law", Cambridge University Press.
- Hardin, G. (1968). "The Tragedy of the Commons." Science **162**: 1243-1248.
- Hargreaves, P. (1997). "'Pesticide Exposure- Issues in Civil Liability within Common Law Jurisdictions'." Environmental Liability Journal **5**(3): 59-67.
- Hatetz, J. (2000). "Fostering Protection of the Marine Environment and Economic Development, Article 121(3) of the Third Law of the Sea Convention". American University International Law Review **15**: 583-610.
- Hooley, R. (2001). "Lender Liability for Environmental Damage." Cambridge Law Journal **60**(2): 405-418.
- Howarth, D. (1995). "Textbook on Tort", Butterworths.
- Howarth, D. (2002). "Muddying the Waters: Tort Law and the Environment from an English Perspective." Washburn Law Journal **41**: 469-513.
- Hughes, D. (1996). "Environmental Law", Butterworths.
- Jordanian Institution for Insurance. (2001). "Insurance Market in Jordan: Current and Future Prospects". Amman, Jordanian Institution for Insurance.
- Jean-Pierre, H. (1998). "European Waste Law", Kluwer Law International.
- Jones, B. (1997). "Deterring, Compensating and Remedying Environmental Damage: The Contribution of Tort Liability". "Harm to the Environment:

The Right to Compensation and the Assessment of Damages". P. Wetterstein. Oxford, Clarendon Press.

- Jones, M. (2000). "Textbook on Torts", Blackstone Press Ltd.
- Kaye, P. (1996). "An Explanatory Guide to the English Law of Torts". England, Barry Rose Law Publishers Ltd.
- Khaledi, E. A. (2002). "Toward the Establishment of Environmental Court". Alrai 11716. Amman.
- Khaleed, A. (1996/1997). "Protection of the Marine Environment Against Pollution". Kuwait, Kuwait University Press.
- Khater, N. Sarhan. A. (1997). "Jordanian Civil Code: The Sources of Obligations". Amman.
- Khayait, A. (1998). "Principles of Islamic law". Wa'el Publishing- Amman
- Khayait, A. (2000). "Environmental Protection in Islam". Al-Rai Newspaper. Amman: 16-18.
- Kinder, R. (2000). "Casebook on Torts", Blackstone Press Ltd.
- Krasham, Z. (1995). "Environmental Legislations in Jordan". Al Shoorg Publishing-Amman.
- Krayeem, K. (1998). "Environmental Legislations in Jordan in light of International Environmental Treaties". Irbid- Jordan, Al Yarmouk University Press.
- Lammers, J. (2001). "International Responsibility and Liability for Damage caused by Environmental Interferences." Journal of Environmental Policy and Law 31(1): 42-55.
- Larouche, P. Lever, J. Gerven. W. (2000). "Common Law of Europe Casebooks Tort Law", Oxford & Protland Oregon.
- Larouche, P. Lever, J. Gerven. W. (2000). "Tort Law", Hart Publishing, Oxford & Protland Oregon.
- Lavanya, R. (2003). "From Stockholm to Johannesburg: The Anatomy of Dissonance in the International Environmental Dialogue." Review of European Community and International Environmental Law 12(1): 23-32.
- Lee, M. (1998). "Environmental Blight: Liability at Common Law." Environmental Liability 6(2): 56-67.

- Lee, M. (2000). "Civil Liability of the Nuclear Industry." Journal of Environmental Law 12(3): 318-331.
- Lenschow, A. (2002). "New regulatory Approach in Greening EU Policies." European Law Journal 8(1): 19-37.
- Lundmark, T. (1998). "Systemizing Environmental Law on German Model." Dickinson Journal of Environmental Law and Policy 7: 1-28.
- Lur, A. B. (1990). "Non-Fault Liability in Germany". "Environmental Liability". P. Thomas, Graham & Trotman Ltd: 167-182.
- Macchiarello, G. (1997). "Environmental Regulations in Argentina." Environmental Liability 5(3): 67-79.
- Marc, P. (2003). "International Law and Sustainable Development: Any Progress in Johannesburg?" Review of European Community and International Environmental Law 12(1): 1-11.
- Marlow, G. (1997). ""Common Law, Property Rights and the Environment: A Comparative Analysis of Historical Development in the United States and England, and a Model for the Future"." Cornell International Law Journal 30: 541-665.
- Marr, S. (2003). "The Precautionary Principle in the Law of the Sea: Modern Decision Making in International Law", Kluwer Law International.
- Matthieu, G. (2001). "The Implementation of Environmental Policy in the European Union Context". "Implementing European Environmental Policy: The Impacts of Directives in the Member States". G. Matthieu, Edward Elgar Publishing Ltd: 12-29.
- Mattyn, D. Charles. P. (1991). "Toxic Torts." New Law Journal 141: 1549.
- McDonald, J. (1996). "Financial Responsibility Requirements: Liability Insurance as an Environmental Management Tool." Environmental Liability 4(1): 2-9.
- McLaren, J. (1972). "Nuisance Actions and the Environmental Battle." Osgoode Hall Law Journal 10: 505-534.
- Meadows, D. (1972). "The Limits to Growth: A Report to the Club of Rome", Potomac Associates.

- Michael, Z. (1998). "Toward an Environmental Protection Regime for the Gulf of Aqaba: International Law Prospects for a Contentious Region". Washington DC, International Environmental Law. available at: <http://www.moe.co.jo/legal/documents/html>
- Miller, C. (2003) "Environmental Rights in a Welfare State? A comment on DeMerieux". Oxford Journal of Legal Studies 23 (1): 111-125
- Mofleh, A. (2001). "The Jordanian Legal System: An Overview". Wa'el Publishing-Amman.
- Mohammad, A. H. M. (1994). "Human Rights under the Jordanian Jurisdiction". "Human Rights in Jordan", Jordanian Human Rights Centre-Amman.
- Mohammad, K. (1994). "Environmental Pollution: Islamic Perspective and the Jordanian Application". Alshrooq Publishing-Amman.
- Monti, A. (2001). "Environmental Risk: A Comparative Law and Economics Approach, the Liability and Insurance." European Review of Private Law 1: 51-79.
- Morris, J. (2000). "Rethinking Risk and the Precautionary Principle", Butterworth- Heinemann.
- Morrow, K. (2000). "Nuisance and Environmental Protection". In "Environmental Protection and the Common Law". J. L. R. Edmunds, Oxford- Portland Oregon: 159-173.
- Munteer, T. (1997). "Proposed European Community Directive for Damage to the Environment Caused by Waste." Journal of Northwestern School of Law of Lewis & Clark College 23: 107-139.
- Muller, G. & Peter, C. (1998). "EC Directives as a means of Private Law Unification". "Towards a European Civil Code". H. A. others, Kluwer Law international. 5: 71-91.
- Muraad, A. (1999). "Explanation of Environmental Legislations in Arab Countries". Cairo University Press- Cairo- Egypt.
- Murphy, J & B. Margaret. (1999). "The Law of Tort", Butterworths.

- Murphy, J. (2000). "Noxious Emissions and Common Law: Tort in the Shadow of Regulations". "Environmental Protection and the Common Law". Lowry, J. & Edmunds, R. Hart Publishing: 52-76.
- Murphy, T. B. J. (1999). "The Law of Torts", Butterworths.
- Mustafa, Z. (1988). "Injurious Acts and Damage in Islamic Shari'a and the Jordanian Civil Code". Damascus, Dar Al Elm.
- Muthana, U. (2000). "Environmental Pollution". Amman, Wael Publishing.
- Myers, N. & Raffensperger, C & Tickner, J. (2001). "The Precautionary Principle in Action", 1st Edition: the Science and Environmental Health Network. available online at:
http://sf.gov.org/site/sfenvironment_page.asp?id=15800
- Nations, U. (1992). "The World Environment 1972-1992". London.
- Newark, H. (1949). "The Boundaries of Nuisance." Law Quarterly Review 65: 480- 490.
- Oliphant, K. & Lunney, M. (2003). "Tort Law: Text and Materials", Oxford University Press.
- Oliphant, K. & Mullis, M. (2003). "Torts", Palgrave Macmillan Publishing.
- O'Quinn, J. (2000). "'Not -so -Strict Liability. A Foreseeability Test for Ryland's v. Fletcher and other Lessons from Cambridge Water Co. V. Eastern Counties Leathers PLC". The Harvard Environmental Law Review 24:287-332.
- O'Riordan, T. Jordan, A. (1998). "The Precautionary Principle in Contemporary Environmental Policy and Politics", Wisconsin. available online at: <http://www.johnsonfdn.org/conferences/precautionary/jord.html>
- Penner, J. (2000). "Nuisance the morality of Neighbouring, and Environmental Protection". "Environmental Protection and the Common Law". Lowry, J. & Edmunds, R. Oxford, Portland Oregon: 29-41.
- Penner, J. (2000). "Nuisance, Neighbourliness, and Environmental protection". "Environmental Protection and the Common Law". J. L. R. Edmunds, Oxford - Portland Oregon: 33-51.
- Pfennigstorf, W. (1997). "How to deal with Damage to Natural Resources: Solutions in the German Environmental Liability Act of 1990". "Harm to

the Environment: The Right to Compensation and the Assessment of Damage". P. Wetterstein. Oxford, Clarendon Press: 131-142.

- Posch, W. (1999). "New Developments in the Law of Civil Liability for Nuclear Damage. Spearhead by Austria: From Privileges for Nuclear Industry to a true Protection of Mankind and Environment". Environmental Liability 7(3): 81-95.
- Pugh, C. Day. M. (1995). "Pollution and Personal Injury: Toxic Torts", Cameron May Ltd.
- Quinn, F. & Elliott. C. (2001). "Tort Law", Pearson Education Ltd.
- Reed, A. (1995). "Strict Liability Offences: A Radical Analysis of recent Decisions." Journal of Environmental Law and Management 7: 156-160.
- Reid, D. (1990). "Environmental Law: A Developing Field." Journal of the Law Society of Scotland 36: 105-114.
- Ministry of Social Affairs: Annual Report. (2002). Annual Report. Amman, Ministry of Social Affairs- Amman: 226.
- Ministry of Water and Irrigation Annual Report. (2002). Annual Report. Amman, Ministry of Water and Irrigation: 302.
- Ministry of Agriculture and Rural Affairs: annual Report. (2002). Annual Report. Amman, Ministry of Agriculture and Rural Affairs- Amman: 249.
- Revesz, R. (2000). "Environmental Law, the Economy and Sustainable Development", Cambridge University Press.
- Rice, P. (2000). "From Lugano to Brussels via Aarhus: Environmental Liability White Paper Published." Environmental Liability 8(2).39-45
- Robinson, J. Donna, M. (2000). "Environmental Protection and the Role of Common Law: A Scottish Perspective". "Environmental Protection and the Common Law". J. L. R. Edmunds, Oxford- Portland Oregon: 239-265.
- Rodgers, C. (2003). "Liability for the Release of GMOs into the Environment" Exploring the Boundaries of Nuisance." Cambridge Law Journal 62(2): 371-402.
- Rolston, H. (1988). "Environmental Ethics: Duties to and Values in the Natural World", Temple University Press.

- Saleh, A. (1980). "International Law and Protection of Marine Environment against Pollution". Cairo, Cairo University Press.
- Sameh, G. (1998). Introduction to Environmental Knowledge. Amman, Wael Publishing.
- Sands, P. (2000). "Environmental Protection in the Twenty-First Century : Sustainable Development and International Law". "Environmental Law ,the Economy ,and Sustainable Development". R. R. P. Sands: 371-400.
- Scott, J. (1998). "EC Environmental Law", Longman.
- Shavell, S. Louis. K. (1996). "Property Rules versus Liability Rules: An Economic Analysis." Harvard Law Review 109.713-742.
- Shavell, S. (1980). "Strict Liability versus Negligence." Journal of Legal Studies 9(1): 1-25.
- Simcox, D. (1995). "The Future of Europe lies in Waste: The Importance of the Proposed Directive on Civil Liability for Damage caused by Waste to the European Community and its Environmental Policy." Vanderbilt Journal of Transnational Law 28: 5-45.
- Steele, J. (1995). "Remedies and Remediation: Foundation Issues in Environmental Liability." Modern Law Review 58(5): 615-627.
- Steele, J. (2001). "Participation and Deliberation in Environmental Law: Exploring a Problem-Solving Approach." Oxford Journal of Legal Studies 21(3): 414-442.
- Stuart, B. & McGillivray, D. (2000). "Environmental Law: The Law and Policy relating to the Protection of the Environment", Blackstone Press Book.
- Sufian, T. (1991). "Statues of Infrastructure in Jordan". Amman.
- Susskind, L. (1994). "Environmental Diplomacy, Negotiating More Effective Global Agreements", Oxford University Press.
- Toering, M. & Markus, K. & Cordonier, S. & Marie, C (2003). ""Prospects for Principles of International Sustainable Development Law after the WSSD: Common but Differentiated Responsibilities, Precaution and Participation"." Review of European Community and International Environmental Law 12(1): 54-68.

- Tromans, S. Thornton. J. (1999). "Human Rights and Environmental Wrongs: Incorporating the European Convention on Human Rights some Thoughts on Consequences for U.K. Environmental Law." Journal of Environmental law 11(1). 35-58.
- Turrall-Clarke, R. (1993). "Civil Liability for Environmental Damage in Europe", Cambridge Academic.
- Turrall-Clarke, E. Tromans. S. (2000). "Contaminated Land: The New Regime", Sweet & Maxwell Ltd.
- UNRWA (1995). Map of UNRWA's Area of Operations in Jordan. Amman: UNRWA.
- Weiss, E. (1989). "In Fairness to Future Generations: International Law, Common Patrimony, and Intergenerational Equity". Tokyo/New York.
- Weiss, E. (1990). "What Obligation does our Generation owe to the Next? An Approach to Global Environmental Responsibility: Our Rights and Obligations to Future Generations for the Environment." The American Journal International Law 84: 198-228.
- Wetterstein, P. (1997). "A Proprietary or Possessory Interest: Claiming Damages for Environmental Impairment?" "Harm to the Environment: The Right to Compensation and the Assessment of Damage". P. Wetterstein, Clarendon Press: 32-54.
- Wetterstein, P. (1997). "Harm to the Environment: the Right to Compensation and the Assessment of Damages". "Harm to the Environment: the Right to Compensation and the Assessment of Damages". P. Wetterstein, Clarendon Press: 19-25.
- Wightman, J. (1998). "Nuisance - the Environmental Tort? Hunter v Canary Wharf in the House of Lords." The Modern Law Review 61: 870-885.
- Wightman, D. McGillivray. J. (1997). "Private Rights, Public Interests and the Environment". "Justice, Property and the Environment". T. H. J. O'Neill, Ashgate Publishing Ltd: 144-161.

- Wilde, M. (1999). "Extending the Role of Tort as a means of Environmental Protection: an Investigation of recent Development in the Law of tort and European Union". Law School. Brunel, Brunel University.
- Wilde, M. (2001). "The EC Commission's White Paper on environmental liability: Issues and Implications." Journal of Environmental Law 13(1): 21-37.
- Wilde, M. (2003). "Locus Standi in Environmental Torts and the Potential Influence of Human Rights Jurisprudence." Review of European Community and International Environmental Law, 12(3): 293-304.
- Winfield, P. (1931). "Nuisance as a Tort." Cambridge Law Journal 4: 190-211.
- Woolf, G. (1992). "Are the Judiciary Environmentally Myopic?" Journal of Environmental Law 4(1): 1-12.
- Howard. M. (2000). "The Cartagena Protocol on Biosafety: An Analysis". available at The Biodiversity Convention Secretariat website: www.biodiv.org
- Olivier. S (2002). "The Precautionary Principle: New Developments in the Case Law of the Court of First Instance". German Law Journal 10:16-33
- Antonia. L (2004). "Human Right in the Balance- Hatton and Marcic", Environmental Law Review 6 (3): 196-201.
- Abdelrazaq. Al Sanhory, "Assays in Civil Law Theories", (1982), Cairo University Press, pp 210-216
- Cardwell. M, (2002), "The Release of Genetically Modified Organism into the Environment: Public Concerns and Regulatory Responses", 4 (3), Environmental Law Review, pp 156-170
- DeMerieux. M, (2001), "Deriving Environmental Rights from the European Convention for the Protection of Human Rights and Fundamental Freedoms", 3 Oxford Journal of Legal Studies, pp521-538.